How Precast Concrete Cuts SP Expenses

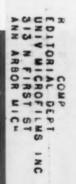
February 6, 1961

RAILWAY AGE weekly

Frisco Plans

1,000 Miles

Of Microwave



Milwaukee Speeds
Car Repairs at
Bensenville Yard

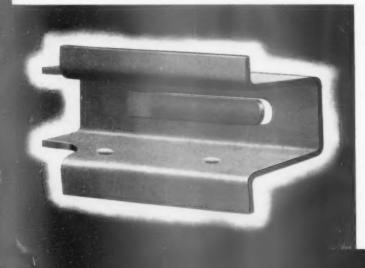


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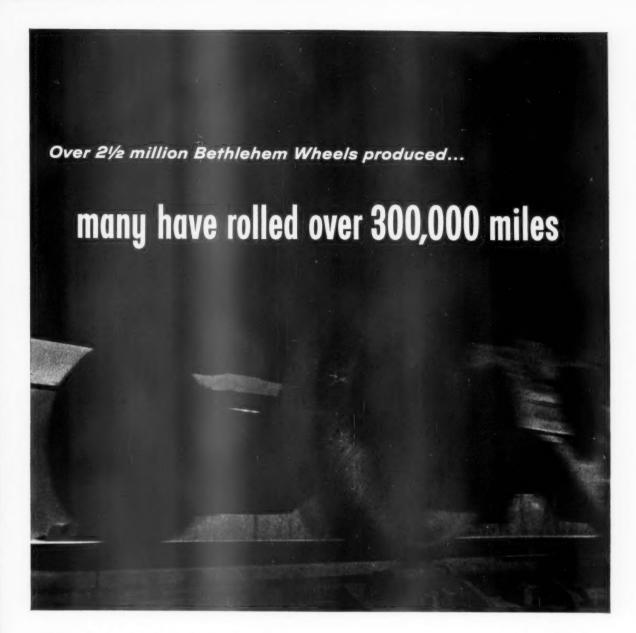
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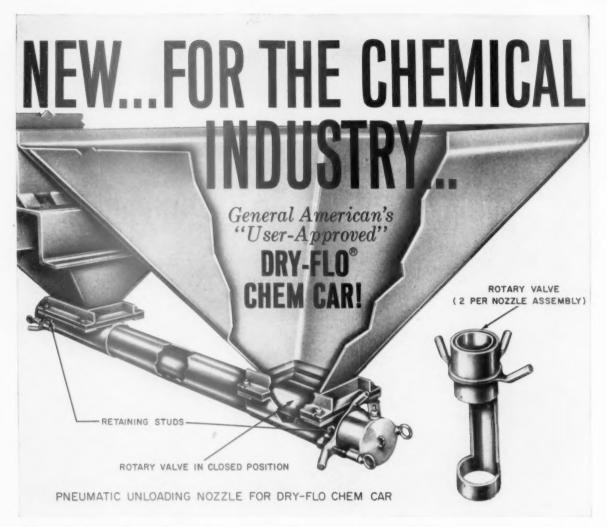
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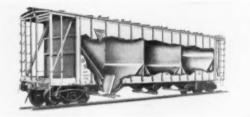
The new 3,500 cu. ft. capacity Dry-Flo Chem Car was developed for the chemical industry to provide a car which would assure freedom from contamination and moisture pick-up while in transit and during unloading.

The car is welded throughout, has fully-gasketed openings, unloading nozzles (created especially for pneumatic unloading) designed for fast disassembly-speedy and complete cleaning. Also the car is divided into three separate compartments.

Illustrated is a schematic view of the new, exclusive General American unloading nozzle. Unloading flow can be controlled to accommodate

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Ness, vice-presidents.

RRs lose round in barge casep. 9

Examiner H. J. Blond has recommended that the ICC turn down the IC-SP request for authority to acquire the John I. Hay Co., a water carrier. He thinks railroad control of the barge line could be granted under certain conditionsbut concedes that the railroads would find these conditions "burdensome."

Cover Story—Frisco has big microwave plansp.13

The proposed system would extend along the road's major lines from Kansas City, Mo., to Birmingham, Ala., and from St. Louis, Mo., to Tulsa, Okla. Forty microwave stations are contemplated.

The road's four-track, all-weather facility at Bensenville, Ill., built at a cost of \$1,000,000, is reducing delays to loaded cars shopped for light repairs.

Cover Story—How precast concrete cuts SP expensesp.18

The road recently completed a line change in Texas which substantially reduced operating expenses and train-operating time. Use of precast, prestressed concrete slabs in six bridges is expected to cut maintenance costs, too.

Missile car readied for testp.32

The first Minuteman car is now in Seattle for installation of launch gear. Here's a detailed description of the car that will rove U.S. rails ready to strike back instantaneously at any enemy.

The Action Page—ICC ups the umbrellap.38

By ordering the establishment of railroad piggyback rates between the East Coast and Texas that are 6% higher than rates for similar service by a "fishyback" water carrier, the Commission has virtually repealed the new rate-making clause of the Transportation Act of 1958. Such manifestly irrational decisions ought to be thoroughly publicized by the railroads.

Short and Significant

Opening statements from both sides. . .

will be received as the Presidential commission studying the management-union controversy over railroad working rules begins work this week. Also due is a decision as to



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11	mos.,	1959		8,979,398,045
Oper	ating a	expens	es	
11	mos.,	1960		6,951,724,230
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Taxes				
11	mos.,	1960		945,064,644
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Freig	ht car	s deliv	ere	d
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12	mos.,	1050		37,819

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whether former Labor Secretary Mitchell, now a candidate for the governorship of New Jersey, will continue as chairman of the commission.

Katy will seek ICC approval . . .

of a federal guaranty for a \$16 million loan to increase working capital and to help provide for retirement of about \$17.4 million in prior lien mortgage bonds due Jan. 1, 1962.

Opposition to BRT-ORC&B merger . . .

is coming into the open in the weeks leading up to a membership vote on an amalgamation proposal already approved by officers and directors of the two unions. Anti-merger feeling comes mostly from ORC&B members, who apparently fear their smaller (but older) organization will be swallowed up and lost in merger with the larger Trainmen's organization.

S&C supply men have formed a new group. . .

known as the Railway Signal and Communications Suppliers Association, headed by W. A. Edwards, Kerite Co. The new organization is a merger of Signal Appliance Association and the Railway Communications Suppliers Association.

Newest Trailer Train member roads. . .

are Central of Georgia, Reading, and Chicago Great Western. Total membership in the piggyback car pool is now 34 railroads and one freight forwarder.

BRT is asking a 15% wage increase . . .

in wage-rules negotiations just getting under way in Canada. Existing contracts expire May 1. Among the preliminaries to be disposed of: BLE efforts to set up bargaining with CN and CP on a system-wide, or perhaps nation-wide, basis.

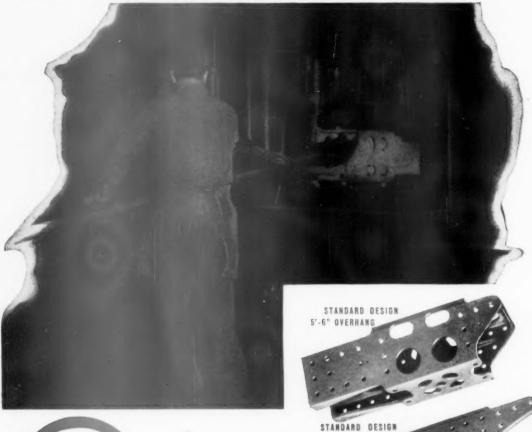
Teamster attacks on piggyback . . .

have brought an answering blast from Roy E. Davidson, BLE grand chief. Rather than appealing for legislation to force the ICC to "discriminate against the railroads again," he charges, the Teamsters "should assist in publicizing the need for a public solution to the problems of automation and technological change."

Discontinuance of Lehigh Valley's. . .

remaining passenger-train service was authorized by the ICC last week. Affected are four interstate trains—two operating between New York City and Buffalo, and two between New York City and Lehighton, Pa. — and two intrastate trains in Pennsylvania.

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RRs Lose Round in Barge Case

▶ The Story at a Glance: The ICC has been advised by Examiner H. J. Blond to find that applicable provisions of the Interstate Commerce Act require denial of the Illinois Central-Southern Pacific application for authority to acquire control of a major barge line—John I. Hay Co. For "discussion purposes only," the proposed report does suggest tie-to-rail conditions which the examiner thinks could be imposed to qualify the proposed acquisition under present law—but he also thinks IC and SP would consider such conditions too "burdensome."

Examiner H. J. Blond's recommendation that the ICC deny the IC-SP application for authority to acquire John I. Hay Co., a water carrier operating on the Mississippi, Illinois and Gulf Intracoastal waterways, was based on his conclusion that the applicant railroads had failed to make showings required by the Interstate Commerce Act.

The required showings must establish that proposed transactions of this type will be consistent with the public interest; will not prevent the water carrier from being operated in the interest of the public and with advantage to the convenience and commerce of the people; will not exclude, prevent, or reduce competition on the water routes involved; and will carry out the precepts of the national transportation policy.

Although IC and SP denied that their proposal made a general case and urged the Commission to deal only with the specific acquisition proposed, the proceeding (No. 20940) has come to be regarded as a potential precedent-setter. The Commission's decision might well indicate what may be done without legislation to implement that phase of the railroad industry's diversification program which calls for freedom to operate water services.

The case marks the first railroad bid for water-carrier rights since the Panama-Canal-Act amendments were added to the IC Act in 1912. Those amendments prohibited railroad control of water carriers operating through the canal—but permitted it elsewhere on the basis of a special showing not required of non-railroad applicants.

The special-showing provisions are

in Section 5(16) of the Act. They authorize the ICC to approve a railroad application for authority to acquire a water carrier only if the Commission shall find that the special showings, noted above, have been made.

Most of the opposition to the IC-SP application comes from water carrier and truck interests. Meanwhile, there is much shipper support including that of the National Industrial Traffic League.

In reaching his adverse recommendation on the railroads' proposal, Examiner Blond cited evidence which he interpreted as indicating that protection of their rail operations would be to the fore in IC-SP operation of Hay. The proposed report said:

Whatever through routes and joint rates affecting combined railroad and water carrier transportation the applicants might institute if the transactions are approved... would be limited to those that would not conflict with competitive all-rail rates and routes. Participation, if any, by the railroads would take place only after determining whether reducing the then existing rates and charges or adjusting the service of the railroads would preserve railroad traffic or permit capture or recapture of desirable traffic enjoyed by barge lines.

"In fact, the applicants would in-

voke the same safeguards to railroad traffic involving routes over rail lines other than their own, before suggesting or agreeing to the publishing of through routes and joint rates reflecting the inherent advantages of low-cost water-carrier service. The applicants define the traffic on which future combined rail and water service might be affected, as that which presently is not moving via an all-rail rate or which moves via other common carriers or private facilities."

The through-route and joint-rate advantages sought by shippers and others supporting the application "do not coincide with the assertions of applicants' witnesses," the proposed report also said. It went on to assert that officers of the applicants "have neither promised nor guaranteed that rate benefits would be available generally if the proposed diversification is sanctioned."

It was evidence of this character which brought Examiner Blond to his conclusion that the applicant railroads had failed to show that their proposal would not prevent Hay from being operated in the interest of the public. As to the law's call for a determination that competition would not be reduced, Mr. Blond referred again to IC-SP operating plans for Hay and noted that Hay routes parallel IC and SP lines—

Restrictions Called 'Ruinous'

Illinois Central and Southern Pacific took a deep breath last week and looked ahead to the next round in their fight for authority to acquire a barge line.

There seemed to be no doubt that exceptions to the ICC examiner's recommendations will be filed.

A spokesman for one of the roads called the report a "typical bureaucratic approach."

He said the restrictions suggested by the examiner (to be applied in the event the roads are permitted to acquire the waterways carrier) would be "ruinous . . . all contrary to the public interest, and the evidence shows that."

Findings such as those in the John I. Hay case, he added, seem to be based not on the evidence but on a "philosophy apparently intended to keep the railroad industry impotent and weak by over-regulation and restriction."

so "the existing competition . . . would be seriously reduced or entirely eliminated." The proposed report then added:

"Other prospective changes in the competitive position of the opposing water carriers and Hay indicates a less direct but equally clear power on the parts of the railroads and Hay substantially to exclude the competition of water carriers operating over the routes in question. As an immediate consequence of being a subsidiary of two strong railroad parent companies, the financial position of Hay, and its economic status amongst competing water carriers, would be greatly improved and enlarged . . .

"Compared to the opportunity of water carriers not associated with railroads, or with major industries engaging in private carriage, the competitive advantage envisioned as accruing to Hay would be overbearing. Under the circumstances, the assertions of most water carriers in opposition herein, that Hay's acquired advantages would

force discontinuance of operations of the independently owned water carriers, and that practically all such competitors including the major water carriers would seek to dispose of their lines and operations to other railroads are of substantial merit."

The conditions which he says would permit approval of the acquisition under present law but which he thinks the railroad applicants would find "burdensome" are set out by Examiner Blond in an appendix to his proposed report. There are seven of them, and Mr. Blond says they "are not unduly stringent, and if imposed, would afford substantial benefits to the applicants and to interstate commerce, while protecting the water carrier generally."

First of the suggested conditions would restrict Hay's regulated and exempt water-carrier operations to the transportation of freight having a prior or subsequent haul by rail, or, by highway "as a service auxiliary of or supplemental to railroad service." The

second would make Hay's "rates, schedules, and practices governing traffic," subject to all provisions of the Act "in the same manner and to the same extent" as are those of IC and SP. Presumably, this would deprive Hay of the bulk commodity exemption which leaves water transportation of commodities in bulk free of federal regulation.

Other proposed conditions stipulate that Hay be free to enter joint-rate and through route arrangements without approval of its railroad owners; that IC and SP solicitors do nothing to "restrain or curtail" the right of industries to route over all water routes and gateways; that IC or SP advances to Hay for the purpose of acquiring new equipment or constructing railwater terminal facilities be submitted to the Commission for approval.

"Obviously, compared to the unlimited authorizations sought," the conditions proposed "would be construed as burdensome," Examiner Blond concluded.

Watching Washington with Walter Taft

• GROSS CAPITAL EXPENDITURES of Class I line-haul railroads for 1960 should total somewhat more than \$875 million, up more than 8% from 1959's \$818 million. That's the latest indication at the ICC from reports of actual outlays for last year's first three quarters and estimates for the last three months.

EXPENDITURES FOR EQUIPMENT should exceed \$595 million, up 6.4% from 1959's \$568 million. Road expenditures will be up 16.1%—from 1959's \$251 million to more than \$280 million. The 1960 figures do not include fourth-quarter estimates from six roads which spent \$8.6 million for equipment and \$2.6 million for road facilities in the fourth quarter of 1959.

THIS YEAR is getting under way with prospective first-quarter expenditures 10.6% below those of last year's first quarter. Like last year's fourth-quarter estimates, this is based on returns from 104 of the 110 Class I line-haul roads. They say their first-quarter outlays for equipment will be down 13.4% while their expenditures for road facilities will be off 3.4%.

• NEW MEMBERS OF THE ICC will be William H. Tucker of Massachusetts and John William Bush of Ohio. They have been chosen by President Kennedy, and are expected to clear the Senate's Interstate Commerce Committee and win Senate confirmation without difficulty. Mr. Tucker, an attorney, is secretary and counsel of Trailways of New England. Mr. Bush is Ohio's director of commerce.

THE APPOINTEES will fill the only two vacancies on the Commission. One vacancy, in a term expiring Dec. 31, 1964, was created last March by the resignation of Anthony F. Arpaia. The other, in a term expiring Dec. 31, 1967, came at the end of last year with the expiration of Commissioner John H. Winchell's term. Mr. Winchell has continued to serve under that provision of the Interstate Commerce Act which permits him to carry on until his successor qualifies.

• AIR-LINE FARES continue to hold the price line. The average revenue per passenger-mile of the regularly-scheduled domestic lines in 1959 was but little more than one-half of one per cent above the 1942 average—5.55 cents compared with 5.28 cents. Meanwhile, the railroad average, excluding commutation fares, was up 50%—from 2 cents to 3 cents.

PARLOR AND SLEEPER SERVICES of the railroads yielded an average of 3.84 cents per passengermile—up 60% from 1942's 2.4 cents. The Pullman Company's take averaged 1.6 cents. Thus, the 1959 traveler in first-class rail service paid a total of 5.44 cents, about one-tenth of a cent under the composite airline average. But the average yield from 1959's aircoach service was only 4.63 cents, nearly a cent below the first-class rail average.

• LEVERETT EDWARDS will continue as a member of the National Mediation Board where he has been since 1950. President Kennedy last week reappointed him for a new three-year term ending Feb. 1, 1964, and prompt Senate confirmation was expected.

To End Bulkhead Problems...

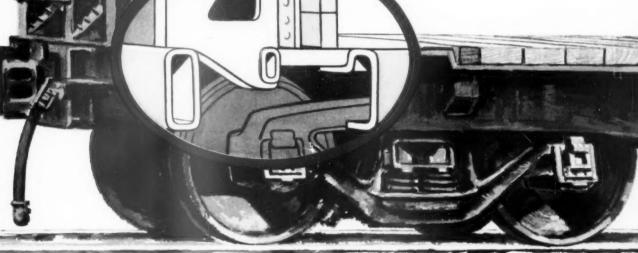
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MANUFACTURING COMPANY



FRISCO'S planned 1,000-mile microwave system would extend along its major lines.

Frisco Has Big Microwave Plans

A 1,000-mile microwave system is under study by the St. Louis-San Francisco. Major reason for microwave is to provide the means for transmission of waybills and other data by facsimile from major yards on the railway to a central data processing office.

The wide-band, high-speed A. B. Dick facsimile system the Frisco is considering, requires a bandwidth equivalent to 60 voice channels for one facsimile channel. To meet StL-SF's data handling requirements, two-way facsimile channels are contemplated.

Microwave is the only practical transmission medium which can provide the required bandwidth.

System to Have 240 Channels

The proposed system would have an ultimate capacity of 240 channels, of which about 160 channel spaces would be part of the initial installation; two facsimile channels (equivalent to 120 voice channels) and 40 voice channels, some with "speech plus" telegraph.

The existing pole line would be retained for dispatch and message circuits, though the line would probably be lightened.

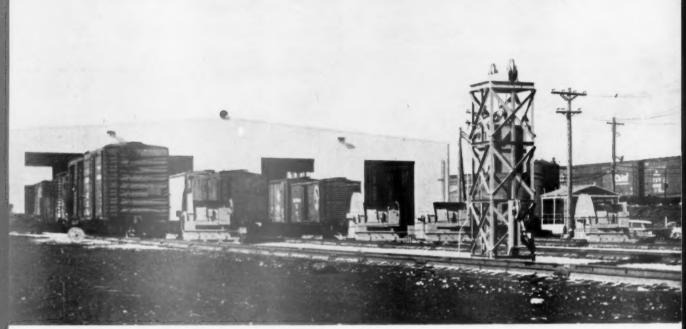
The Frisco's proposed microwave system would extend along the road's major lines in the shape of an "X"—from Kansas City, Mo., to Birmingham, Ala., and from St. Louis, Mo., to Tulsa, Okla. (see map). The road's general office is at Springfield, Mo.

The study was made by the Collins Radio Co. under contract to the railroad. Collins engineers made the complete survey accompanied by railroad personnel. The railroad men provided transportation and pertinent information relating to possible station sites. Survey results filled two volumes, each 11/2 in. thick. Included were site plans. photographs of the site, path attenuation data, required antenna size, the formulae and computations. This information is provided for each proposed site and microwave path. A System Data Summary was included. (This is only a first examination and not necessarily the system that may actually be installed. No funds for the system have yet been authorized.)

The average path length planned is about 25½ miles, with the maximum being 36.7 miles between Blue Springs and Amory on the line to Birmingham. The antennas will be mostly 8- or 10-foot dishes, except for the 6-foot dish at the St. Louis office. The latter has to accommodate a hop of only 6.85 miles. Average path loss will be -141.5 db, average receiver input power will be -37.88 dbm, and the average fade margin will be 40 db.

Eleven of the 40 planned microwave stations would be located on the right of way. Most of the other stations would be within one mile of the railroad, with the farthest being five miles from the tracks. A dc microwave system with battery standby is planned in preference to an ac system with engine-generator standby.

The study was under the jurisdiction of R. W. Troth, general superintendent, communications and signals.



INBOUND TRACKS in car repair area are equipped with RMC car pullers. Repair facilities are located adjacent to the

Milwaukee Repairs Cars Fast at

▶ The Story at a Glance: "One of the largest spot car repair systems in the country and the first to be installed on a railroad serving the Northwest region," is the way Milwaukee officers describe the \$1-million facility at Bensenville, Ill. The four-track, all-weather installation is at the road's major Chicago area yard. Already its round-theclock operations are producing savings and reducing delays to loaded cars which are shopped for light repairs.

New car-repair methods are improving the Milwaukee's Bensenville Yard operation. An average of 85 light repair cars are now out-shopped daily in this round-the-clock repair operation. Already it is paying dividends, even though in service only a few weeks. Working conditions are greatly improved, and there has been a substantial saving in per diem costs, because cars are turned out faster. Delays in repairs to bad-order cars have been reduced to a minimum to provide more attractive service to shippers.

The 120- by 120-ft fabricated shop building houses four service tracks and is immediately south of the hump at the west end of the classification yard. Additional facilities include a shop building housing offices, locker room, compressor room, and a stock room. There is a separate building for processing journal lubricators, and a large wheel-storage area.

Each of the service tracks is equipped with two recessed, traversing 40-ton Whiting jacks, which raise a car for truck removal within 25 sec; a retarder for spotting cars at this jacking location; two Whiting Trambeam jib crane assemblies equipped with electric hoists for truck repairs. Retractable hose reels mounted on the masts of the jib cranes supply car oil, air, air and solvent, and oxygen and acetylene. Electric welders, mounted overhead at each track, are equipped with retractable cable reels.

Parts required for normal maintenance are stored along each track. "Lazy Susan" bins contain nuts, bolts, rivets, welding wire, and similar materials. Gaskets and hand tools are mounted on peg boards. Larger items, such as side frames, couplers, and bolsters which are stored immediately outside, are handled in and out of shop by fork-lift trucks. Material supply is a responsibility of the Stores Department.

The repair facility operates 24 hr a day, seven days a week. Two carmen are assigned to each track on all three shifts. There are three other carmen assigned on each shift—an air-brake man, a repair billing write-up man, and a fork-lift-truck operator.

Cars are carded for the shop in the receiving yard where both east and westbound trains are inspected on arrival. Shop cars are humped to a track on the south side of the classification yard. From here, light repair cars are moved to the inbound repair tracks, usually in 9-car cuts. Heavy repair cars are generally placed on a stub-end track, although some are repaired on one of the four through tracks. The wrecking crew force is assigned this heavy work, along with cleaning-track duties.

The incoming cars, after being spotted by switchers, are handled by a large between-the-rails "rabbit." All movements, including operation of switches and derails, are controlled from a pushbutton panel at each track in the building. Lights on the panel show locations



Bensenville hump; cars can be switched readily by the yard locomotives.

Bensenville

of cars and pullers. The foreman handles locking and unlocking of switches to place cars on lead-in service tracks, also the large rabbit for the initial pull. Further movement of cars is done by carmen assigned to each track.

Cars are generally moved into the shop in pairs. The second car is cut off at the doorway, and the first moved to spot position. Repaired cars are moved outside about three car lengths from the doorway by a small "rabbit" and then roll down the outbound tracks. A spring switch prevents cars from being pushed back into the area when the hump engine pulls the cut for outbound moves.

The building has continuous overhead doors along the north and south walls. Eight natural gas infrared heaters are above each track work area between the jib-crane installations. Clear plastic panels in the roof and side walls give maximum daylight illumination. Mercury vapor high intensity floodlights are outside of the building. A speaker system in the shop connects with the inbound and outbound leads, office, and humpyard master. Intercom is provided in and out of shop to heavy repair location, office, and wheel track.





PLASTIC PANELS in roof and walls admit maximum of natural illumination. Gas-fired infrared heaters at work locations, started by pushbutton, are timed for 15-min. operation. Facility makes repairs on round-the-clock basis.

CONTROL BOARD is mounted on mast of jib crane which carries hoists used in truck disassembly. With panel it is possible to operate car movers which bring cars to the repair "spot" and move them out after work is completed.

Letters from Readers

'Grab Bag'

Cleveland, Ohio

To the Editor:

We have read with interest the excellent article, "RR Unemployment Insurance: A 'Grab Bag' for the Idle," in the January 23 issue of Railway Age and congratulate you on the excellent treatment in this troublesome matter.

We also particularly liked the article entitled "Unions and 'Security'" on the Action Page of the same issue. . .

C. B. Bennett
Assistant to President—Public Relations
Nickel Plate

Reading Has TV, Too

Philadelphia, Pa.

To the Editor:

An article, "What's Wrong With Railroad TV?," in your Jan. 9 issue refers to "fewer than 12 railroads" with such installations, then lists 11 roads. . .

For some reason, two television installations of the Reading were not included in this listing, although our road was a pioneer in the use of TV in coal dumping. Our first installation was made in November 1958, at the Reading's coal dumper in Port Richmond, Philadelphia. The second was made in March 1959, at the railroad's Port Reading, N.J., coal dumper.

Both closed circuit sets have been in intensive operation since their installation, and while there were a few "bugs" to work out, they have been most satisfactory.

> Harry E. Hammer Director Public Relations Reading Company

Beschev in Perspective

Washington, D.C.

To the Editor:

That was truly a wonderful article which Railway Age ran in the January 2 issue concerning the interview with Soviet Minister [of Railways] Beschev and other aspects of the Russians' impressions of railroading in America. Mr. [Curtis] Buford [AAR vice president—operations] was delighted as much as the rest of us with the efforts you

made to put the Soviet comments into perspective. Obviously, this was not an easy job to do without recriminations and finger pointing, but the tone of your whole presentation avoided this completely. . . . A beautiful job!

James N. Sites Manager, News Service Association of American Railroads

Aerial Mapping

Ottawa, Ont.

To the Editor:

We were especially interested in your excellent report "Proposed PNR Route Was Mapped by Air" (RA, Dec. 12, 1960, p. 44), since Canadian Aero Service performed some 70% of this aerial survey.

Your readers concerned with time schedules may be interested to know that 490 mi were mapped within just 70 days. The area we covered was 334,250 acres, and the map scale 1 in. = 400 ft with 10-ft contour interval.

The tight deadline and very rugged terrain permitted us to establish only a minimum number of control points on the ground. Our engineers employed "bridging" techniques to establish photogrammetically the positions and elevations of needed points between the ground control points. The maps' accuracy did not suffer.

J. W. Strath Vice President Canadian Aero Service, Ltd.

Timely Editorial

Denver, Colo.

To the Editor:

Your Action Page editorial "TOFC
—Too Much Guesswork" (Nov. 28) is
timely. I hope considerable attention is
given to it.

R. Knox Bradford Vice President Denver & Rio Grande Western



Stop Signs Save Lives in Michigan

A 75% reduction has been made in the annual number of accidents at 313 railroad crossings of secondary highways in the State of Michigan. The red and white octagonal signs are installed at crossings protected only with the conventional crossbuck signs. The safety record resulting from the installation is as follows: since Stop signs were installed 3 years ago, only 10 accidents occurred at the 313 crossings. In the 5-year period before the sign installations, 57 serious accidents had occurred at the crossings. Reason for the im-

proved safety record is two-fold: First-the octagonal red and white Stop sign, familiar to motorists, is new at rail-highway crossings. It attracts the motorists' attention. Second-Michigan law requires that motorists encountering such signs come to a complete stop before proceeding. New York Central's general attorney George Wyatt led a successful fight in the state legislature for the passage of a bill permitting installation of these Stop signs at all county secondary road crossings with railroads, provided county authorities agreed.

Dividends Declared

NORFOLK & WESTERN.—4% adjustment preferred, 25¢, quarterly, payable Feb. 10 to holders of record Jan. 19: 6% preferred, 15¢, quarterly, payable Feb. 1, May 1, Aug. 1 and Nov. 1, to holders of record Jan. 12, Apr. 13, July 13 and Oct. 13, respectively.

NORTHERN OF NEW HAMPSHIRE.-\$1.50, quarterly, paid Jan. 31 to holders of record Jan. 18

PROVIDENCE & WORCESTER.—\$2.50, quarterly, paid Dec. 31 to holders of record Dec. 19.

SARATOGA & SCHENECTADY.—\$1.50, paid Jan. 16 to holders of record Jan. 3.

SEABOARD AIR LINE. -50¢, quarterly, paid Dec. 28 to holders of record Dec. 16.

WABASH.-\$1.50 paid Dec. 22; \$5, special, paid

WEST JERSEY & SEASHORE.—\$1.50, semiannual, paid Jan. 3, to holders of record Dec. 15.

Why Brenco makes both roller and solid bearings

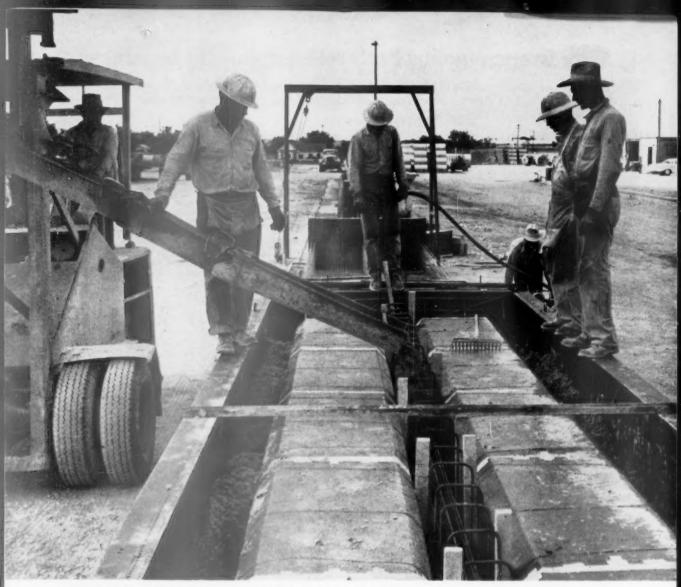
We enjoy our unique position of being the only manufacturer to make both roller and solid bearings. It gives us an unbiased, unfettered concentration on a big challenge: better bearings for the railroad industry.

We believe that both types are needed today. Roller bearings for new, fast-freight, high-mileage cars. Solid bearings for older equipment, where they will continue to perform rugged duty.

We have acted according to our belief. Brenco solid bearings have seen years of reliable service. And now the Brenco crown-taper Roller Bearing is showing excellent results.

Brenco bearings...more than a million in service!





PRESTRESSED SPANS were precast at Victoria, Tex. Several spans were fabricated simultaneously. Pictured are employees

Precast Concrete Bridge Slabs

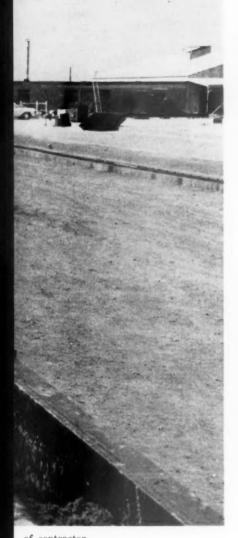
➤ The Story at a Glance: Minimum maintenance expenditures were one of the main objectives when the Southern Pacific was designing the bridges for a line change recently completed in Texas. This consideration led to a decision to make extensive use of precast, prestressed concrete for the deck slabs and pile caps. Piles are spirally welded steel pipes.

Precast, prestressed concrete was used by the Southern Pacific in the construction of six bridges required by a nine-mile line change completed in Texas last year between Etholen and Small. A feature of these bridges is that the steel foundation piling forming the bents is welded to plates embedded in the undersides of the precast, prestressed concrete caps. A brief description of the line change accompanies this article.

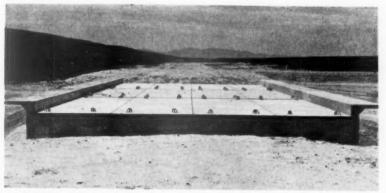
Principal characteristics of the six bridges are listed in the table on page 22. In addition to these structures the new line required the installation of 36 corrugated metal culverts. All the waterway openings were built or installed in advance of the grading work. The culverts were installed by railroad forces but the bridges were constructed under contract, with railroad forces doing the welding work required.

Five of the six bridges are supported on bents consisting of Armco spirally welded pipe foundation piles. There are three piles to an end bent and four to each intermediate bent. The sixth bridge, No. 744.09, with a 65-ft deckgirder span, is supported by reinforced-concrete abutments and a center pier. The presence of rock at the earth's surface at this location prevented the driving of piles.

The pipe piles used are 16 in. outside diameter. They were given a shop coat of paint on the outside before driving and coats of red lead and aluminum on the exposed surfaces after driving. Piles were driven by a crawler crane equipped with suspended leads, and a steam hammer which was driven by air supplied by a 600-cfm compres-



of contractor.



DOUBLE-TRACK, 3-span prestressed-concrete bridge at Small, Tex., is typical of others, except it will support a siding as well as a main track. Combination footwalks and curbs are necessary where siding is involved.





UNUSUAL INSTALLATION of a culvert was made to intercept drainage above the railroad and carry it beneath the tracks.

PILING consisted of spirally welded pipes. These were welded to plates embedded and anchored to the undersides of the caps.

to Cut SP Maintenance Costs

sor to produce a bearing capacity of 75 tons each.

The railroad reports that it obtained an average of 10 ft more penetration than had first been anticipated through the use of these piles. Average total penetration was about 35 ft. Sections were added by welding as necessary to obtain the desired lengths. A back-up ring was used on the inside of the piles at the splices to insure a proper weld in case there were any gaps left after measuring and cutting. As each pile was driven, the earth core compacted until its surface was about 2 ft below normal ground level. These voids were later filled with concrete.

(Continued on page 22)

Line change cuts train time, maintenance costs

Substantial reductions in operating expenses and train-operating time were effected by the line change on the Southern Pacific between Etholen and Small. The project was completed at a cost of more than \$2 million.

It is anticipated that the new line will also effect savings in maintenance. For one thing, there will be fewer miles of track to maintain. The old line, now retired, consisted of 11.53 miles of single track and four sidings totaling 3.24 miles. The new line, also single track, is 9.29 miles long and has two 9,000-ft sidings and two 325-ft set-out spurs. There will be less wear on the new track through the elimination of many sharp curves, including six of 10 deg. The new line has only eight curves, all of 2 deg.

IN 1960 A GREATER SHARE OF NEW FREIGHT CARS THAN EVER BEFORE WENT ON ROLLER BEARINGS



More roller bearing cars were put on TIMKEN tapered roller bearings than on any other make

The big switch to "Roller Freight" really rolled in 1960 with America's railroads putting a greater share of new cars than ever before on roller bearings, and more of them on Timken tapered roller bearings than any other make.

Railroads are buying more and more roller bearings to solve the hot box problem and cut maintenance and operating costs to a minimum. And the performance records of Timken tapered roller bearings prove that they're the best investment.

- Timken bearings average more than a hundred million car miles between car setouts caused by overheated bearings.
- 2. Timken bearings will roll four years without additional lubrication.

3. In high-speed piggy-back service, Timken bearing-equipped cars have already rolled over 400,000 miles on their original bearings. Timken bearings roll the load, eliminate metal-tometal sliding friction—keep freight cars rolling for a better return on investment.

Now's the time to switch to "Roller Freight" for more profit. The Timken Roller Bearing Company, Canton 6, Ohio. Cable address: "TIMROSCO".





The caps and slabs are of precast, prestressed concrete. The size of the anchor plates and the amount of stress in the prestressing steel were determined in accordance with "Criteria for Prestressed-Concrete Bridges; U. S. Bureau of Public Roads, Washington, D. C., 1954." Specifications for the concrete called for a minimum strength of 5,000 psi at 28 days.

Steel plates with anchor lugs were cast in both the upper and lower faces of the caps to provide metal underneath for welding to the piles and on top to serve as masonry plates for the slab-bearing plates. Also, short lengths of 1-in, pipe, projecting beyond one side of the cap and penetrating the lower pile-connection plates, were cast in the caps over each pile location. These were used for filling any voids at the tops of piles with cement grout after the welding had been completed.

Two deck slabs were used for each span of the single-track structures and four for each of the double-track spans. The slabs were all of the same cross section, being 7 ft wide and 3 ft deep. Two hollow cores were cast lengthwise in each slab for reducing the dead load. Ballast-retainer curbs were used on the field sides of all slab

Bridge	Structures	on	the	New	Line

BRIDGE NUMBER 743.50	OR TAN. T	2-22' 6"	SPANS Prestressed-concrete slabs	SINGLE OR DOUBLE TRACK Sgl
744.09	T	(1-32' 10" (1-65'	Prestressed-concrete slabs Steel deck-plate girders	Sgl
749.35	2° C.	(5-32' 10" (1-81'	Prestressed-concrete slabs Steel deck-plate girders	Sgl
750.37	T	3-22' 6"	Prestressed-concrete slabs	Sgl
751.02	T	3-22' 6"	Prestressed-concrete slabs	Dbl
751.04	T	1-32' 10"	Prestressed-concrete slabs	Dbl

decks, except that combination curbs and walks were included on one side of the double-track structures.

Steel lifting eyes were cast near the ends of the slabs to facilitate handling, and two lifting holes were provided in each cap. Since the slabs of all bridges were laid on a grade of more than 1% it was not necessary to provide weep holes for deck drainage.

The decks over the two steel-girder spans (Bridges 744.08 and 749.35) were formed of treated timbers and ballast guards. A waterproofing protective coating, using asphalt plank,

felt and bitumen, was applied over the timbers. Because of the dry climate the deck timbers are expected to last indefinitely.

Except for Bridge No. 744.09, which has concrete abutments, the bulkheads of all bridges were made by driving sheet piling. These piles are of the interlocking type, using 7-gage galvanized metal. Two to four steel channel sections were welded horizontally to the exposed face of each bulkhead to serve as walers for extra rigidity. Embankment slopes at bridge ends were faced with riprap and grouted.

Railroading



After Hours with

th Jun Lyne

SIMPLE PRESCRIPTION—I was reading a report the other day of a speech by Illinois Central's Wayne Johnston which seemed to me to provide a prescription for the cure of the railroads' present unsatisfactory situation—in a few eloquent words. His statement went something like this: "Take your foot off of the railroads' neck." The industry isn't seeking any more than that, and it certainly can't possibly ask for anything less.

SNOWBIRDS' FARES—Railroads ought to increase passenger fares in snowy weather, to get some contribution from the "snowbirds," who put railroads to the expense of providing this standby service throughout the year. So Economics Professor William Vickrey of Columbia University concedes. But he would go farther and give the "regulars" an inducement to stay home during blizzards, providing some kind of rebate on multiple-ride tickets not used on stormy days.

It isn't merely a question of whether to charge the snowbirds a premium—the ethics and economics of that are clear. The really tough question is how to collect the premium, when trains are so crowded that trainmen cannot make their way through them.

Professor Vickrey notes that the British railways operate

8-car multiple-unit trains with 2-man crews; and asks "where is the vaunted efficiency of American labor?"

LETTER FROM THE BOSS—D&H's President William White, every now and

then, passes along a report to employees, which he labels "A Letter from the 'Old Man'." He's sent me a copy of his most recent one, which goes into the background of New York's "full" crew laws, repeal of which is recommended by the state's public service commission.

"Repeal of the 'full' crew laws alone wouldn't make the railroads healthy," the letter says, "but it is one of the things that needs correction. Railroads can't afford to employ men in unproductive jobs while necessary work, such as repairing locomotives, is deferred because funds are not available.

"Railroads of New York are willing to enter into an agreement with the labor organizations to minimize the effect of repeal on present employees."

I like to see such frank reports to employees. It's better to have this discussion out in the open than relegated entirely to the grapevine. Wouldn't it be a good thing, too, if either railroads or unions would see that all employees get a complete report on Jimmy Hoffa's political campaign against piggybacking?

New Products Report



Inverters

The Activerter provides 110-volt AC power from a 12-volt battery. It can be used to operate electric power tools, lights and other devices. It is available in four models from 150 to 500 watts output. By the operation of a switch the Activerter becomes a fast or slow charger for 6 and 12-volt batteries. The units are available completely self-contained, including battery. Electric Storage Battery Co., Dept. G-RA, P.O. Box 6266, Cleveland 1, Ohio.

New Microwave

A flexible "building block" 6 kmc microwave system which provides duplex multi-channel service is now available. When used with the transistorized B910 multiplexing equipment it will establish from 1 to 600 circuits with no penalty to the small user who must start with 12 channels or less. Combinations of the RF terminal equipment form repeater and junction stations. Lynch Communications Systems Inc., Dept. RA, 695 Bryant St., San Francisco 7.

Aluminum Wash

Deck-Glo Aluminum Wash is a liquid combination, the solvent action of which dissolves grease and oil. Its detergent action separates grime and grit from metal, and its acid action removes stains and oxide films. The wash is nontoxic and non-flammable and is said to be harmless to painted signs, lettering, etc. It is available in 5- and 55-gallon plastic containers. Sea-Air Chemical Corp., Dept., RA, 32-00 Borden Ave., Long Island City 1, N.Y.



Pocket Transmitter

A fully transistorized FM radio transmitter is now available for operation on the 25-54 mc and 132-174 mc bands. It provides 500 milliwatts RF power output. The unit (shown in hand) is completely self-contained, including microphone, antenna and batteries, and serves as a mate to the receiver (at right). It uses either rechargeable nickel-cadmium (9 hours), or replaceable mercury (80 hours), cells. Motorola Inc., Dept. RA, 4501 W. Augusta Blvd., Chicago 51, Ill.



Towing Tractor

Mobiltow 40, a 4,000-lb draw-bar pull tractor is designed to push or pull freight, bales, barrels or cargo of any type on trackless trains at rail yards, shipping docks, warehouses and factories. A 58-brake-hp-engine with torque converter and 2-speed transmission gives forward and reverse speeds to 14 mph. Overall length is 95 in.; width, 64½ in.; wheel base, 62 in.; weight. 5,600 lb. Minneapolis-Moline Co., Dept. RA, Hopkins, Minn.



Multi-Tap Outlet Box

The new Multi-Tap outlet box molded of "Safety Yellow" Neotex permits the user to install his own receptacles. Unbreakable plastic covers are available for either four duplex or four single receptacles and may be ordered with weatherproof flip lids. Fusing each outlet in the Series 3010 Multi-Tap, one piece outlet box permits gang operations with individual circuit protection. Daniel Woodhead Co., Dept. RA, 15 N. Jefferson St., Chicago 6.

Truck Flooring

Bruce Dura-Wood laminated hardwood flooring is made of selected oak. Electronic laminating processes and new waterproof glues provide full trailer or truck-length boards up to 12 in. in width. The flooring is available with shiplap, center-match, or special machining and is shipped precut to specifications. It is said to offer substantial savings in installation and maintenance. E. L. Bruce Co., Dept. RA, 1648 Thomas, Memphis 1, Tenn.

Graphite Lubricant

Mexacote is a quick drying, nontoxic graphite lubricant compounded from a blend of Mexican graphite and special oils. When thinned with turpentine, naphtha, or oleum spirits, the lubricant is easily applied. It was formulated for use on railroad equipment such as switch plates, springs, buffer assemblies and center plates. Packaged in standard one-gallon paint cans, net weight 11 lb. The United States Graphite Co., Dept. RA, Saginaw, Mich.

0 **D** Service RAILWAY AGE

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands: i.e., with last three digits omitted)
MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1960

		Average	9.				Maint	Way and	1 Struct	ores M.	Operatir	ig Expensionent	806			1			2		2	
Name of Road		during	Prototyt	Operath	Total (i	nc. misc.)	Total 1960	Total	Retire-	Total	Total 1	and Retire-	Fraffic	Trans-	Fota!		Operat	rating ra	from	Rallway	ando Judo	ating ating ame
Akron, Canton & Youngstown Alabama, Tennessee & Northern Archison, Topeka & Santa Fe	II mos.	12,958 12,958	5,243 2,543 2,543 43,288 473,696		5,432 2,632 2,583 51,042 562,989	5,406 3,106 51,028 57,028	612 612 6612 6.491 73,355	52 640 50 548 57,748	8 62 8 71 8 11 8 8 11 8 8 11 8 8 1 1 1 1 1 1	75 854 138 9,988 5,993 115	61 815 139 250 569 255 250 250 250 250 250 250 250 250 250	16 62 62 614 242	508 508 4 449 1,417 5,601 21	1,729 77 924 8,822 10,591 44,	4.218 4 153 1.752 1 39.156 37,	348 353 859 859 489		4000x44	76 214 108 831 887 887 909 71.	731 19 119 552 39	355 355 101 101 754 5	354 354 379 3,254 3,475
Atlanta & St. Andrews Bay Atlanta & West Point Western of Alabama	I mos.	81 93 93 133 133	3,269 2,289 2,581 2,930	240	3,265 3,266 3,363 3,581	3,672 3,483 3,483 3,832	351 435 447 493	36 434 50 473 40 548	35 86 10 107	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	338 338 59 59 652	873 856 209	80 180 201 222 237	70 129 436 518	150 1,814 253 2,859 286 3,132	171 272 272 2,951 8,164 8	57.1 4. 55.5 5. 88.1 87 85.0 84 91.7 82	1407.84	453 34 504 26 449	43 630 17 193 24 365	36 4 5 5 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	567 567 71 20 20 208
Atlantic Coast Line Baltimore & Ohio Staten Island Rapid Transit.	Mov. II mos. II mos. II mos.	5,572 5,989 5,989 2,98	10,815 124,024 26,229 317,125 1,780	845 13,501 14,501 92 998	12,797 348,729 29,969 361,454 3.860 2,860	13,349 147,912 32,461 360,107 3,068	1.486 19.224 2.876 38.386 65 65	9,874 6,26 9,874 622	1.929 2 496 5,592 67 1.39	2.528 7.530 5.964 6.257 596	2,480 554 224 11,424 436	742 652 939 691 10,	504 600 877 319 15 24	5,226 10 59,068 120 13,324 23, 58,133 296, 156 3,	512 014 11 983 299 236	475 162 613 176 176 171	82.1 78 80.0 81 81.9 81 15.3 111 13.1 103	20-0x	285 716 987 1 373 26 40 375	950 175 8 921 1 531 13 555 1	962 565 409 681 154	627 2,447 5,035 899
Bangor & Aroostook Bessemer & Lake Eric Boston & Maine	Nov. II mos. II mos. II mos.	596 597 203 203 1,556	999 11,673 1,486 21,595 4,481 52,364	213 213 5,368	12,426 1,387 22,375 5,295 62,559	981 2,329 18,230 5,607 66,363	2,927 3,003 609 7,010	2.869 2.869 3.286 488 8,297	242 252 280 163 667	248 769 759 7,159 6,313 9,313	227 012 523 786 1,411 2,	203 141 109 239 659 1,3	32 373 32 401 150 746	290 3764 10,157 157 157 1643 483 483 483	837 726 877	10.888 16.888 16.884 7.215 84.215	84.6 86 88.0 90 25.0 77 79.2 92 78.7 75 78.1 79	200000	153 1487 1487 1918 1918 1918 1918 1918 1918 1918 19	112 125 1466 3,866 3,479 2	124 401 777 21 562	54 894 2,609 371 2,148
Cerolina & Northwestern. Central of Georgia	Nov. II mos. II mos. II mos.	2334 2334 2334 1,7455	6,222 307 2,909 3,234 34,720	33 487 1,311	7,019 7,019 3,971 3,535 38,372	7,163 3,275 3,473 40,438	1,053 352 352 484 5,914	1,358 38 504 400 6,081	223 7 80 46 530 7	930 31 322 669 ,963	93 1,159 342 752 7,849 2,	18 21 23 193 1192 116 1.8	20 221 6 61 163 879 15	132 888 79 849 1448 2919	345 ,414 ,738 1954 ,883	375 7 1,988 6 174 5 967 5 924 8	72.9 82 62.9 69 52.5 43 58.5 60 83.6 84 88.3 84	4.0004	128 149 Ci 233 581 489 3,	31 365 172 172 268 3,066 1,	47 398 112 255 459	1,000 145 519 334 ,609
Central of New Jersey Central Vermont Chesapeake & Ohio	Nov.	593 593 375 5,122	3, 209 37, 533 7, 630 24, 006 295, 883	5,202 25 25 25 541 541 5,491	4,130 47,207 8,903 25,980 318,526	48,181 48,181 870 9,634 27,666 317,676	5,188 2,285 3,700 18,000	5,358 1 2,402 3,700 6,430 5	96 .063 61 199 199 1481 58	397 832 832 832 109 1229 1446 446 446 55	716 432 105 186 932 1.551 20,	145 753 102 937 933 9,2	72 23, 20 23, 20 3, 814 10, 211 118,	090 231 336 543 446	3, 222 38, 602 662 7,817 22,211 242,124 235,	415 78 672 83 672 83 298 85 963 76	8.0 79 3.0 77 7.8 84 7.5 77 7.9 74	2000	908 605 5, 086 402 33,	515 515 620 814 85 85 814	847 72 360 748 5	229 614 17 420 4,620 0,555
Chicago & Eastern Illinois Chicago & Illinois Midland Chicago & North Western	II mos.	862 862 121 121 10,726 10,802	26,846 26,846 625 6,685 15,018 180,563	1,911	2,813 31,793 6,843 17,433 209,313	33,322 6,31 6,780 17,680 216,898	4,032 4,032 529 3,519 3,899	3,904 3,904 452 2,800 4,904	28 340 92 506 3485 36	563 898 117 236 358 37 180	542 646 102 102 192 192 192 12,	152 903 1.1 256 148 386 7.3	336 13 334 13 383 87	146 162 162 162 163 163 165 116,	349 26, 349 4, 349 4, 349 15, 341 15,	1353 83 132 83 365 61 000 63 636 94	3.5 3.7 3.7 3.6 3.6 3.6 3.6 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8	848944 8 2-2	464 2, 245 1, 494 1, 702 16, 16,	240 604 1139 401 1655	50 471 96 968 765 831	2,212 108 1,119 1,686
Chicago, Burlington & Quincy, Chicago Great Western Chic., Milw., St. Paul & Pac	Nov. II mos. II mos. Nov.	8,655 8,660 1,469 10,596 10,597	186,600 2,236 27,797 15,381	19,563 19,563 91 1,072 13,821	21,990 230,538 2,470 30,087 18,550 212,701	21,423 240,458 2,594 31,318 17,755 222,269	3,051 11,565 4,091 2,392 11,364	\$3,698 \$3,360 4,551 2,486 4,856	390 3 45 42 45 42 421 35	733 45 770 45 760 4 760 4 019 38	138 12. 360 1. 268 1. 672 9.	107 131 131 1419 1,3 901 740 6,0	8, 929 929 94, 118 343 10, 7, 7, 086	219 187 934 187 934 22 595 14	.062 16, 156 192, 935 1 798 15, 043 183,	843 81 879 78 867 73 447 79 839 81	7.6 76 2.2 72 3.3 72 8.3 72 8.8 87	45 869	928 23, 535 23, 752 1, 658 18,	.549 .330 .169 .620 .663 .941	660 312 145 115 016 383 12	7,235 7,235 3,281 2,024
Chicago, Rock Island & Pacific Cinchiletd Colorado & Southern	Nov. Nov. II mos. Nov.	7,541 293 293 712	12,587 161,413 1,640 18,169 980 11,603	15,031 15,031 878	15,552 195,290 18,261 18,261 14,236	15,965 201,915 19,289 1,230 14,408	1,825 5,956 2,110 2,112	1,867 5,406 2,391 1,55 6,646	.972 33 245 3 245 3 244 2	673 35 295 35 207 3 368 2,	.029 329 545 1.	483 108 107 167 81 876 3	505 014 80 73 747 4, 881 6,	127 13 1669 156 1577 11 5883 11	074 13, 479 158, 070 1. 072 12, 084 12,	835 84 104 64 213 65 998 899 438 83	83 62 83 62 84 65 84 65 86 65	38.73	.478 811 16, 581 28, 2,289 2, 131 131	811 197 239 81 453	282 226 460 516 6, 47 836	596 9066 564 367 106 579
Ft. Worth & Denver Colorado & Wyoming Delaware & Hudson	I Boy.	1,362 1,362 39 39 763	2,144 19,018 1,774 3,143 37,108	1,625	23,127 23,127 3,277 3,355 39,939	24,375 24,375 194 2,904 3,817	3,430 222 414 4,757	265 779 194 194 579	33 360 2 28 28 80 709 8	238 29 330 665 444 7.	337 255 355 760 738 2.1	46 19 19 198 1188 1.1	72 786 9 23 108 178 158	9.456 17, 85 17, 85 17, 1,298 2, 1,304 2, 5,127 32,	799 147 167 1732 123 32,	733 71 879 77 151 76 151 76 879 81 227 81	24.26.74	42.545.4	5,164 1. 45 1,205 622 7,517 3,5	222 575 34 355 952 4,	143 764 392 304 503 5	163 930 3 381 518 .700
Delaware, Lack, & Western Denyer & Rio Grande Western Detroit & Toledo Shore Line	Nov.	See Erie 2,128 2,128 50 50	See Erie-Lackawann 1.128 5.647 17 50 5.877 5.75 50 5.877	2,754	6.9,831 558 6,353	68,921 7,016	5437	612 987 53 663	93 93 4 42	912 609 67 793	899 835 89 889 2	327 602 24 265 265	224 1. 592 22. 23 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,	1,956 3, 22,589 46, 219 46,	3, 737 46, 367 46, 259 4,	3,958 63, 46,579 66, 380 65, 4,507 66,	90 80	23.2.2	201 1.2 094 13.1 101	278 1. 280 9. 56 9.	014 1. 702 10, 34	.050 .052 20 515
Detroit, Toledo & Ironton Duluth, Miss. & Iron Range Duluth, So. Shore & Atlantic	II mos.	4400000 440000 4004044	17,572 17,799 17,799 39,498 5,873	13	18.824 1.324 46.424 6,452	19,585 23,895 29,857 6,812	2,477 2 6,165 8 1,178 1	195 379 379 199 251	8807 4. 8699 7.	375 687 384 6.87 104 104 1.04	2558 2558 2958 2958 2958 2958	151 6652 3220 321 1 265 288 34	22.5522	5,538 14,257 2,257 31,257	233 337 130 267 567 5,67	14,312 75, 3,427 76, 3,427 799, 26,121 67, 5,586 84,	2 73. 1 98. 2 89. 2 84.	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	405 487 1.3 293 991	339 339 333 333 40 405	298 3443 5560 851 383	181 1601 224 100 452 452

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REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands: i.e., with last three digits omitted) MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1960

	rt Railway perating income 1959 1992 1,737 1,737 1,737	361	20,489 20,489 2488	5,012 1,538 17,192 31	7,324 7,958 7,958 1,400 4,23	957 957 553 1,563	88 840 3,137 1,901 16,735	173 1,575 36 536	1,620 1,620 1,128 3,703	2,242 29,569 84 1,005 67 630	398 18,425 7,023 1,673 15,832	1,487 8,146 370 370 437
	Ne of talls 1960 134 22,170 21,476 7,054	284 121 21 416 70 510	5,367 1,597 17,376 35	3,539 1,383 12,277 1277	6,558 775 743 815	82 126 962 123 3,029	2,561 2,561 15,498	1,790	1,872 7,3 814 814 3,501	28,957 28,957 208 208 1,859	1,927 12,586 577 8,779 13,867	15,228 15,228 299 299 31
		2,247 452 452 229	379 4.393 1.905 27.587 66 470	576 6,440 2,253 24,704 53	6,407 103 840 1,201	272 272 297 297 355 4,898	4,421 206 3,850 2,928 27,076	1.870	3,056 1,32 1,596 3,816	1,929 21,365 1,300 1,9 421	5,678 62,310 5,290 1,220 18,141	1,004 11,231 1,047 3,3 3,64
	Net from railway operation 1,076 1,075 10,032 1,654 26,124	4,700 4,700 74 793 82	3.917 3.867 49,300 131	1,446 14,548 45,552 45,552 1,669	15,816 2,076 2,076 1,895	771 190 1,568 4,339	4,816 535 7,643 8,175	4,496	6,097 1,801 1,086 12,995	5,883 64,318 2,094 2,897	8,924 98,945 418 2,034 3,148 39,665	1,256 12,105 1,056 1,056 592
	100 700 1100 850 850 850 850 850 850 850 850 850 8	89.8 84.3 95.7 83.5 86.3	118.1 91.6 777.2 77.3 73.3	78.2 76.8 77.8 77.8 83.7	75.35.35.75	75.4 73.1 100.4 85.3 89.6	87.0 88.1 59.0 62.6 76.6 80.1	80.5 81.7 65.5 62.6	93.2 88.3 51.7 75.0 74.8	78.3 76.2 85.1 84.8 70.6	85.2 84.0 107.5 100.3 69.6 71.8	92.1 86.2 54.7 86.0 90.1
-	[ceres	95.2 82.9 88.6 88.7 111.9	99.3 91.9 79.7 78.4 63.9 75.7	77.7 79.2 81.0 79.6 80.0	61.9 60.0 51.6 56.7 111.9	74.2 73.8 179.4 146.2 87.6 90.9	89.7 91.7 68.1 7.8.3 81.7	87.6 79.7 79.7 79.6 79.9	97.7 83.9 65.9 75.8 75.8	76.0 76.6 85.1 87.7 87.7 51.2	83.0 84.1 119.6 71.9	888 990.2 641.0 84.1
	Total 1959 350 4,096 2,359 30 174 15,557	2.283 25.193 579 6.660 2.701	3,925 47,528 15,641 180,959 3,146	57.734 17.572 195.409 8.179	24,165 24,190 2,750 2,750 2,882	2,217 5,590 5,590 3,822 44,505	5,019 55,827 1,290 14,628 14,501 167,244	1,590 18,401 2,502	34,622 264 3,153 3,293 40,400	211,702 211,702 15,686 3,365	46,521 526,528 27,260 27,253 8,581 97,924	10,354 113,620 1,938 1,938 3,333
	Total 1960 4,008 2,539 35,364 15,694	22,724 55,724 6,211 3,090	3,973 44,205 15,139 179,049 3,062	55,048 17,324 193,611 7,052	23.715 23.715 2.718 2.718 2.979	2,172 4,960 4,960 3,683 43,340	53,409 11,145 15,048 169,843	1,592 17,620 2,456	3,008 31,834 290 3,204 3,404 40,081	18,646 210,161 1,358 14,994 3,045	43,613 523,057 29,446 8,069 99,083	9,919 110,956 1,897 280 3,125
1200	Trans. 172 1,988 1,988 17,630 9,054	983 10,974 3,214 103 983	23.830 23.830 87.320 83.014 1.322	25,156 8,746 94,809 3,563	1,099 12,910 1,190 1,248	1,167 1,761 2,185 24,824	2,974 30,724 615 7,354 7,379 83,190	8,020 8,020 81 937	1,288 15,011 120 1,440 1,764	9,314 105,399 617 7,010 1,21	24,985 290,789 11,686 4,328 53,158	5,558 62,117 78 910 147 1,666
penses -	8 8 80 85 563 563 6,145	72 870 41 439 24 24 248	1,026 461 6,139 303	264 3,074 653 7,148 502	1,070 33 365 365 24	178 178 128 1,484	39 496 78 875 507 5,621	28 336 36 387	1,200 1,200 14 154 1,78	8,008 1,108 1,133 10	11,518 11,518 63 63 692 3,954	2,624
rating Ex	Deprecall and A	1,280 34 367 110	1,305 909 9,770 8	3,229 3,229 9,406 25 293	1,243 1,243 135 391	8 37 415 204 2,031	1,859 1,075 1,201 12,830	80 905 13	1,577 440 440 2,886	1,166 11,818 76 836 11	26,865 3,652 4,781	5,242
Ope	- 6.54	6,003 1,352 1,352 440	936 19.938 3.769 43.738 49.8	1,331 14,017 45,585 45,585 1,994	5,778 48 389 56 678	318 318 1.860 718 8,366	12,1056 12,105 3,354 3,756 42,033	346 4,095	7,458 73 950 850 11,172	4,136 47,840 3,339 54 601	120,100 120,100 763 9,236 1,931 22,299	1,795 19,598 146 53 53 579
N MICE	Ce- Tota ta 1960 56 656 9,559 3,192 35,378	5,395 1,223 61 61 474	9,138 3,535 42,117 515	1,334 14,581 3,886 45,240 1,538	5,461 344 405 72 846	34 340 189 2,039 652 8,251	11,367 11,367 244 3,241 3,870 44,115	414 4,123 424 424	6,866 6,866 992 739 10,241	4,325 47,815 3,092 56 579	9,500 121,050 994 10,282 1,629 21,647	1,911 20,928 176 176 550 7, 1960.
and Spr		492 992 944 333	103 730 3,550 55 54 55	850 850 4,809 32 32	8358 837 837 133	272 86 98 98 1.068	1,131 253 253 329 3,540	318 318 28	120 633 85 85 954	343 3,582 2,582 2,36 1,31	12,085 12,010 33 588 120 1,697	2,839 279 279 75 ve Oct. 1
Maint Way	- 6-2	4,457 1,031 756 756	7,558 2,838 36,989 696	1,018 3,094 35,321 1,159	3,138 3,638 633 47 844	3.24 6.71 6.81 8.85 8.85 8.85	8,867 2,076 2,078 27,712	4,123 rn 24 266	8,0717 8,071 485 4447 5,772	38,294 38,104 2,701 749	65,381 3,958 1,247 1,247	1,575 16,430 87 805 17 436 ed effecti
Mai			7,541 2,839 36,704 655	858 2,957 34,460 68 842	2,870 2,870 48 427 47 651	285 285 38 481 481 6,289	8,402 1,36 2,034 2,346 26,252	3,897 h Weste 299	6,330 588 474 518 5,931	3,221 37,364 2,647 2,647 84 826	5,149 67,430 4,484 11,245 14,829	15,596 15,596 768 768 460 as merg
	1959 1959 1959 5,397 2,731 2,731 17,813 206,279	29,882 605 7,294 3,129	3,323 51,903 20,273 233,614 4,300	247,951 9,773	3,737 41,703 4,976 4,976 3,573	3,033 3,033 5,567 4,480 49,677	5,767 63,400 2,187 23,380 18,920 208,817	22,512 and North	39,253 39,222 5,198 4,392 53,990	23,683 277,904 1,707 18,490 4,768	54,603 626,641 2,102 27,160 12,334 136,483	11,242 131,860 280 3,544 3,544 3,700 ch Erie wa
SOR.	ng Reven 1960 1960 417 5,084 3,273 45,396 17,349 204,001	27,424 27,424 7,004 3,008	4,003 48,122 19,006 228,349 4,046	6,493 70,526 21,872 239,164 8,721	39,223 39,531 4,794 4,874	2.944 2.944 2.39 3.392 4.204 47.679	5,431 58,225 1,680 22,000 19,223 207,997	1,817 22,116 h Chicago 3,461	3,078 37,930 441 5,005 4,490 53,077	24,526 274,479 17,089 17,089 5,941	52,537 622,002 2,133 31,480 11,218	11.175 2.953 2.953 3.718 with whi
	Operati nt Pass. 8	4,274	2,328 629 8,370	2,515 1,720 20,442	802	1.18 1.88 1.88	4,405 46,349 33 443 534 7,592	205 1960 wit	541	10,312 25 297	4,981 69,874 363 363 1,316	3.643 40,148 127 Western
9	Freight 414 5,038 2,578 34,14 13,954 167,982 1	20,294 20,294 5,886 2,944 2,944	3,500 41,482 16,855 203,396 3,907	5,819 63,098 17,748 193,161 7,766	2,805 34,873 470 4,746 3,756	2,930 2,930 3,353 3,941 44,412	848 9.714 1.521 20,284 17,168	936 1,709 936 20,530 Merged Nov. 1, 1 77 3,285	2,886 35,590 4,965 3,957 47,923	21,247 237,408 15,778 15,778 5,913	39,593 469,691 29,778 10,782 132,155	6,008 66,055 2,623 3,396 3,396
A way a see	mileage operated during period 175 205 205 3,181 1,180	32222	946 8,298 8,293 219 219	2.747 6.500 6.500 335 335	327 327 160 160	96 177 1,127 1,127	344 746 746 5,684	936 936 Merges 77	3,222 3,222 172 172 2,892 2,914	9.44.9 5411.0 54	10.368 10.368 221 221 2.170 2.170	1,742 1,753 21 21 21 97 99 99
	Nov. 11 mos. Nov. 11 Nov. Nov.	Nov. I mos.	Nov.	II mos.	II mos. II mos. II mos.	Nov. II mos. II mos.	Nov. II mos. II mos. Nov.	Nov. Nov. H Ross.	I mos	I Nov.	Nov.	Nov. II mos. II mos. I nov. I nos. Or Delawar
	Name of Road Dututh, Winnipeg & Pacific Elgin, Jollet & Eastern Eric-Lackawanna*	Florida East Coast Georgia Railroad Georgia & Florida	Grand Trunk Western Great Northern Green Bay & Western	Gulf. Mobile & Ohio Illinois Central Illinois Terminal	Kansas City Southern Kansas, Oklahoma & Gulf Lake Superior & Ishpeming	Lehigh & Hudson River Lehigh & New England Lehigh Valley	Long Island Louistana & Arkansas Louisville & Nashville	Maine Central Minneapolis & St. Louis Minn., Northfield & Southern	Minn., St. Paul & S. Ste. Marie Misseuri-Hinois M-K-T Lines	Missouri Pacific Monon Monongabela	New York Central Pittsburgh & Lake Erie New York, Chic. & St. Louis	New York, New Haven & Hart 11 mos. 1754 6,408 3, New York Connecting 1780 2, 12, 25, 25, 30 New York, Sus. & Western 1800. 9, 21 2, 25, 30 New York, Sus. & Western 11 mos. 99 3,396 alrectudes figures for all periods for Delaware, Lackawanna & We
6	1961 RAII W	AY ACE								(Contin		next page

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Service

RAILWAY AGE

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REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands: i.e., with last three digits omitted) MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1960

			1									
	rating rating come 1959 6,099 59,574 376 1,266 13,756	76 1,244 213 5,085 26,691	4,940 85 732 53 202	6,974 2,093 2,093	10,677 10,677 585 616 9,439	26 1,343 17,298 3,431 35,586	643 380 6,520 598 598	48 1.724 43.939 6.751	4,617	3,541 132 132 839	34,351 34,351 5,602 -188	7,234 224 5,669
	Net R operation 1960 5,432 60,836 1,176 1,176	282 282 18 2,834 9,800	468 4,962 60 673 260 260	550 6,194 71 2,085 3,085	1,295 10,402 38 695 708 9,850	375 1,089 14,253 3,440 32,566	5,213 5,213 267	222 2,862 44,386 4,285 4,285	376 193 2,723 148	3,561 3,561 112 48 645	3,842 30,246 444 5,878 69 263	7,200 3,21 4,828 4,828
	Raliwa fax 2,569 44,185 657 1,865 18,968	1,173 1,173 1,569 5,772 65,025	809 104 1.186 Cr.94 Cr.67	6,789 4,073 3,26 3,17	7,836 60 638 922 10,045	13,696 13,696 2,816 30,359	84 979 3,265 468	79 934 4,841 55,705 10,303	22 625 2,939 2,903 281	5,279 3,279 3,59 1,076	7,358 73,097 7,512 7,512 593	5,067 270 4,201 202
	Net from rallway operation 6,831 89,869 4,025 2,366 25,179	3,951 2,951 2,913 13,619 39,420	2,284 2,219 2,451 265	1,351 16,514 7,224 16	20,823 20,823 2,982 1,819 22,079	2,393 31,002 7,296 70,938	1,168 1,751 6,720 1,907	82 682 7,597 96,148 28,221	1,310 533 6,845 71	1,367 13,317 786 204 2,480	13.074 24.235 1.925 22.423 1.067	9,992 9,937 9,937 45
	Ing 1.3 9.59 8.9 8.9 8.9	562.3 56.8 92.6 877.8 82.1	30.0 31.9 48.0 59.1	84.4 84.4 68.8 99.6	78.6 80.9 53.0 56.1 63.4	883.3 76.4 666.3 686.3	887.4 86.2 745.0 66.3 86.3	90.6 86.4 86.4 78.1 15.5	668.8 556.7 72.4 74.1	884.2 881.4 663.8 663.8	72.9 73.7 80.4 80.4 96.4	884.5 880.0 888.6 87.3
	Operation 1960 1 1960 1 1960 1 88.9 88.9 88.9 7 88.9 7 88.9 88.9 88.9	79.79 74.8 776.7 82.1	554.4 554.4 554.4 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3	83.9 74.5 94.5 01.3	58.8 58.8 55.9 64.9	73.8	98.0 75.1 76.6	11.1 92.6 81.6 78.6 78.4	58.0 58.0 777.2 79.3 76.2	76.5 86.8 74.8 65.0	69.1 772.6 778.7 778.4 80.1 86.1	89.7 78.9 79.4 98.0
	Total 1959 11,954 137,527 7,733 10,868 134,980	7,337 7,337 10,231 58,205 665,859	9,823 1 2,631 7,174	7,567 82,050 11,274 14,510 3,854	89,648 2,22 2,648 3,496 38,077	2,861 110,422 111,652 14,566	1,130 12,996 26,826 494 6,133	762 1 8,391 34,551 8,780 97,198	1,840 2,214 23,283 2,832 2,832	55,289 2,415 2,415 4,339	29,986 347,712 7,474 88,554 657 7,386	3,023 3,223 3,518 37,656 2,095
-	Total 1960 11, 307 33, 24.2 7, 569 11, 484 36, 698	600 6,748 9,609 84,203	9,184 2,776 6,957	7,037 81,389 14,483 3,343	7,776 88,513 2,643 3,350 37,682	3,028 3,028 9,977 113,184 14,757	13,093 13,093 2,260 26,887 6,228	814 33,583 389,258 92,549	1,808 1,049 23,150 2,901	52,489 2,282 2,289 4,235	29,245 329,889 7,099 81,506 6,625	33,929 3,298 3,298 38,376 2,201
-	Trans- portation 4,899 59,209 2,971 5,893 65,656	3,257 3,267 5,853 36,987 56,450	5,227 1,034 2,248	3,698 43,180 7,453 1,366	3,893 43,320 1,638 1,828 19,711	1.292 4.807 53.804 7.110 78.288	5,510 9,766 2,965	251 2.798 16.303 3.909 45.009	68 788 11.975 11.560 1.357	27,547 86 925 175 1,899	14,505 160,862 4,253 48,216 3,650	1,251 14,503 1,546 17,754
naes	Traffic 399 8,473 551 435 4,683	81 23 23 1,121 3,052 3	350 350 350 350 350 350	2,140 2,140 309 23 277	3,928 2,928 244 187 2,012	181 466 5,206 5,680	463 855 929 233 248	28 303 774 8,448 2,787	3832	2,554 13 139 51 562	1,083 12,845 3,611 296	1.381 1.381 2.740 1.09
ting Expe	Deprec. Deprec. Betire- ments 1,483 16,944 40 441 819 8,995	29 29 3,050 32,755	26 283 10 108 45 492	5,279 66 714 200	6,614 6,614 13 2,332 2,406	21.3 765 8.191 1.019	2.748 2.748 1.15	1.034 2.595 28.362 2,223	1,419	3,110 111 126 148	26.780 26.780 5.143 44 486	3,370
- Operat	Toral 1959 3,035 38,327 1,463 2,313 29,342	75 894 55 598 14,011	1,640 41 389 1,716	1.864 18.892 3,212 653	8,785 8,785 22 299 778 7,590	2,663 27,128 3,394 11,260	3,443 6,29 7,711 947	2,185 10,255 12,156 1,719 18,679	31 448 5,150 564	1,112 365 365 56 570	7,315 87,223 1,219 15,605 1,775	8.770 693 7.615
	Total 1960 5,996 5,998 1,464 2,581	832 832 62 459 48,069	1,320 34 405 1,613	1,605 18,799 3,263 53 598	17,774 17,774 274 675 7,673	23,432 28,018 3,421 41,592	3,285 7,968 7,962 782	207 9.264 10.624 18.921	21 286 413 5,176 605	11,369 35 383 383 53 53	7,959 82,175 1,183 14,490 1,704	9,1178
	Deprectand Retirements 404 4,564 3 157 230 3,827	238 258 1,486 16,206	285 285 285 285	2,140 3,140 3,27 9,9	1,974	2,352	408 102 914 125 125	316 6.826 1.885	4440 440 440 888 888	1,091	536 6,895 1,311 5,64	676 87 905
	Total 1959 2.271 24.840 2.078 2.078 2.0560 2.55.660	2,349 2,349 2,045 6,904 78,886	2,337 355 486 1,682	1,049 12,285 1,659 842 842	16,891 19 297 522 6,386	51 1,617 18,636 2,451 30,893	225 2,563 6,410 1,300	2.21 2.286 59.897 2.869 21.732	557 4.929 4.85 485	9,103 559 564 564 848	4,389 56,036 1,013 13,036 969	6,058 6,023 582 6,129
	Total 1960 2,067 24,507 1,28 1,665 25,691	2,239 2,251 1,947 5,986 78,624	1,851 1,851 539 1,654 1,654	1,969 12,637 1,889 1,889 717	1,496 16,915 342 342 476 6,242	89 1.596 18.574 2.387 28.972	2,688 6,143 6,143 1,631	2,226 5,030 57,190 19,209	545 332 4.699 52 52 518	6.927 93. 588 588 774	49,249 49,249 870 10,151 727	6,578
	225,137 9,511 325,137 9,064 13,776	1,020 12,923 971 12,716 74,776 810,853	7,450 5,255 7,147	97,251 1,851 21,699 4,225	110,229 110,781 4,720 4,872 60,050	3.746 13.746 13.344 146.731 21.904 246.816	15.083 2.869 36.237 9.244	10.388 39.968 505.476 10.719	3.247 2.724 31.503 3.821	5.961 67.883 249 3.326 7.164	41,929 471,675 9,311 110,210 8,966	3,588 40,267 3,973 49,073
	Revenu 1960 18,138 223,111 8,594 13,850	10,753 11,753 12,522 67,822 780,867	6,899 6,899 5,227 7,222	8,388 97,824 1,747 21,707 3,301	109,336 383 4,725 5,752 59,752	3,995 12,370 144,186 22,053 238,867	14,247 3,010 33,607 8,135	9,183 41,180 495,406 10,586 120,770	3, 247 29, 947 3, 847 3, 869	5.818 65.887 3.878 6,715	42,319 454,124 9,024 103,930 7,692	3,320 43,021 4,001 48,313 2,246
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	Average national during during during period 2,744 2,744 2,744 2,744 5,92 6,799 6,799 1,592	2000 00 00 00 00 00 00 00 00 00 00 00 00	338 338 126 136 132	1,300 1,303 1138 391 391	44 848 448 448 448 448 448 448 448 448	144 144 4,135 6,267 6,267	3337 3337 3997 3997	203 203 7.954 8.001 4.091	150 936 936 284 284	1.828 1.828 1.61 1.61 239 239	2,413	842 1,188 1,188
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	Name of Road Norfolk & Western Norfolk Southern	Northwestern Pacific Pacific Electric Pennsylvania	PennReading S. S. Lines Piedmont & Northern Pittsburgh & West Virginia	Reading Richmond, Fred. & Potomac Rutiand	St. Louis-San Francisco St. Louis-S. F. & Texas St. Louis Southwestern Lines	Sayannah & Atlanta Seaboard Air Line Southern Rallway	Alabama Great Southern. Ginn., N. O. & Tex. Pac Georgia Southern & Florida	New Orleans & Northeastern Southern Pacific Texas & New Orleans	pokane International pokane, Portland & Seattle enneasee Central	fexas & Pacific. Fexas Merican Toledo Peoria & Western	Union Pacific Wabash Ann Arbor	Western Maryland Western Pacific

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People in the News

ARCATA & MAD RIVER. — John E. Leavitt, freight agent, Blue Lake, Calif., appointed operation and traffic agent there and his former position abolished. James S. Liston named accountant.

ASSOCIATION OF AMERICAN RAILROADS.— Gregory S. Prince, vice president and general counsel, Washington, D.C., elected to the newly created post of executive vice president and general counsel.

ATLANTIC COAST LINE.—H. F. Hock, commercial agent, Sumter, S. C., appointed division freight agent, Charleston, S. C. O. L. Woodword, commercial agent, Chattanooga, Tenn., named general agent there. A. R. Howard appointed perishable agent, Jacksonville, Fla. Charles K. Brown appointed industrial geologist, Jacksonville.

BALTIMORE & OHIO.—Charles E. Bertrand, assistant vice president—operation and maintenance, Baltimore, Md., promoted to vice president—operation and maintenance, succeeding William C. Boker, retired.

BURLINGTON—G. F. Reynolds, assistant general freight agent, Chicago, appointed to the newly created position of general freight agent. F. C. Reisse, general agent, New York, appointed general freight agent there.

CANADIAN PACIFIC.—G. G. Søyer, assistant superintendent, Smiths Falls, Ont., promoted to superintendent, Farnham division, succeeding the late T. E. Wheeler. W. W. Stinson, assistant superintendent—piggyback services, Montreal, named assistant superintendent, Smiths Falls division, succeeding D. W. Alexander, transferred.

R. R. Morrish, division engineer, Schreiber, Ont., transferred to the Smiths Falls division, succeeding P. C. Fuller, promoted.

CENTRAL OF GEORGIA .- E. C. Jones, general reight traffic manager, Savannah, Ga., appointed chief traffic officer, succeeding H. C. White, who retired Feb. 1. E. J. McCoffrey appointed general freight traffic manager-rates, and his former position of assistant general freight traffic manager abolished. G. E. Johnston, freight traffic manager-sales, succeeds Mr. Jones as general freight traffic manager-sales, W. F. Leach, assistant freight traffic manager, Macon, succeeds Mr. Johnston. E. B. Shear-ouse, general agent, Washington, D. C., appointed assistant freight traffic manager, Savannah, succeeding J. F. McKemie, transferred to Macon, Ga., to replace Mr. Leach. T. J. Wren and C. J. Toshoch, assistant general freight agents, Savannah, promoted to general freight agents there and J. D. Hinely named assistant general freight agent. C. A. Price appointed assistant Florida freight agent, Miami, Fla., succeeding R. E. Sumerell, named general agent, Richmond, Va. Mr. Summerell succeeds C. H. Smith, named general agent, Washington, D.C., succeeding M. S. Summerell succeeds C. H. Smith, named general agent, Washington, D.C., succeeding M. S. Succeedi ing Mr. Shearouse,

CHESAPEAKE & OHIO.—Anthony L. Agardi, chief clerk, office of the president, Cleveland, appointed staff assistant there. Sergei G. Guins, assistant to director of research, named assistant director of research, Cleveland.

Moynard A. D'Aoust, coal traffic agent, appointed assistant general coal traffic agent, Detroit. Raymond L. Dickinson, assistant coal traffic agent, Grand Rapids, Mich., named coal traffic agent, Toledo, succeeding W. H. Mortimer, retired. Bernard A. Stock, coal traffic sales trainee, appointed assistant coal traffic agent, Grand Rapids. H. E. Middle-kauff appointed chairman of the Rules Committee, Huntington, W. Va., succeeding the late J. W. Knopp, Jr. R. B. Isphording appointed assistant purchasing agent, Cleveland. Abolished position of member of Rules Committee formerly held by Mr. Middlekauff.

DETROIT & TOLEDO SHORE LINE—Harry A. Sanders elected president, succeeding Francis A. Goffney. Mr. Sanders is also vice president and general manager, Grand Trunk Western, Detroit, having succeeded Mr. Gafney, named vice president, highway services, Canadian National Systems (RA, Dec. 19/26, 1960, p. 50).

ELGIN, JOLIET & EASTERN.—Robert A. Adomson appointed terminal trainmaster, Joliet, III.

FRISCO TRANSPORTATION CO.-L. W. Menk elected president, St. Louis, effective Feb. 1.

GRAND TRUNK WESTERN.—R. G. Moughon, assistant chief engineer, Detroit, Mich., appointed chief engineer there, succeeding C. J. Morris, promoted.

MISSOURI-KANSAS-TEXAS.—Wollace G. Sheridan and Leon J. Vorndron appointed sales representatives, San Antonio, Tex. and Philadelphia, respectively.

MISSOURI PACIFIC.—Harold M. Hoffmeister, general purchasing agent, elected vice president. Mr. Hoffmeister will continue to direct the purchasing department, and in addition, will have responsibility for administration of the electronic data processing and methods and procedures program.

T. W. Faulk, trainmaster, Palestine, Tex., transferred to Freeport, Tex., succeeding B. E. Wotson, retired. J. W. Dunlop, trainmaster, Poplar Bluff, Mo., succeeds Mr. Faulk, and in turn is succeeded by R. L. Coldwell. W. E. Butler named division trainmaster, Osawatonie, Kan., to replace W. V. Jones, retired.

Arthur A. Weiss appointed general freight agent-divisions, St. Louis, succeeding Oliver C. Weber, who retired Jan. 31. J. N. Sonders named manager-foreign and perishable traffic, St. Louis. Earland Sandstrum, general freight agent, Houston, promoted to assistant traffic manager there, assuming duties formerly assigned to J. C. Selover, advanced to traffic manager, Kansas City, Mo. Mr. Selover replaces William H. A. Turner, named executive general agent, Kansas City, succeeding F. E. Pennington, retired. Mr. Sandstrum's successor is Franklin K. Massey, general agent, Houston, who in turn is re-placed by Robert A. Sheldon, Jr., commercial agent, Eugene, Ore. Joseph C. Hullihon, traf-fic representative. Sacramento, Cal., named general agent, Atchison, Kan., replacing Robert D. Pierce, Sr., division freight and passenger agent, retired. Horold W. Kossling, executive general agent, Harlingen, Tex., promoted to assistant traffic manager, Chicago, succeeding Guy L. Harmon, transferred to Portland, Ore., to replace Enoch Y. Butler, general agent, retired. Raymond T. Watt, perishable traffic manager, St. Louis, suc-



Gregory S. Prince



Charles E. Bertrand



Harold M. Hoffmeister



H. A. Peterson NP



E. M. Stevenson



John J. Newbauer, Jr. RF&P



Kenneth D. Hestes



R. Shelton Goode T&P

ceeds Mr. Kassling. Chorles J. Somervell, commercial agent, Birmingham, Ala., advanced to general agent, Helena, Ark., succeeding James H. Dwyer, retired. Thomos S. Gloss, general agent, freight department, Memphis, Tenn., named assistant traffic manager there, to succeed John A. Fetz, retired. Mr. Glass' successor is Simeon M. Corter, Jr., rate analyst, traffic analysis division, St. Louis. Frank L. Evons, general agent, Beaumont, Tex., promoted to executive general agent, San Antonio, succeeding W. E. Bobel, retired. Ellis E. Monuel, commercial agent, Lake Charles, La., replaces Mr. Evans. William U. Fuller, district passenger and freight agent, Memphis, advanced to general agent passenger depart-

ment, Austin, Tex., succeeding A. R. Fox.

NEW HAVEN.-A. Gerdes Kubach, first vice president, appointed executive vice president, New Haven, Conn.

NEW YORK CENTRAL.—Ernest C. Nickerson, vice president—passenger and merchandise, New York, transferred to the executive department. Mr. Nickerson will retain responsibility for passenger and merchandise services and will be given additional responsibilities at the direction of the president.

Malcolm P. Richards, director of purchases, New York, appointed vice president—purchases and stores, succeeding the late Henry R. McCarthy.

NORTHERN PACIFIC.—H. A. Peterson, freight traffic manager, and E. M. Stevenson, eastern freight traffic manager, named to the newly created positions of assistant vice president-traffic, with headquarters at St. Paul. Mr. Peterson will supervise freight sales and service in the central, eastern and southern states, and Mr. Stevenson will supervise sales and service in on-line territory hetween the Twin Cities and the North Pacific Coast and in western off-line territory.

READING.-H. B. Gountt, general manager, Reading, Pa., appointed transportation manager. Philadelphia, and his former position abolished. Communications heretofore addressed to the general manager should be sent to the vice president—operation and maintenance.

RICHMOND, FREDERICKSBURG & POTOMAC.— John J. Newbouer, Jr., assistant secretary and assistant treasurer, appointed also administrative assistant to the president, effective Feb. 1.

SEABOARD.-J. C. Porrish, general car distributor, appointed assistant to the manager, trailer-on-flatear service, Richmond, Va.

W. N. Goff, commercial agent, Fort Pierce, Fla., appointed general agent, Belle Glade, Fla., succeeding M. O. Carlton, who retires Feb. 27.

SOUTHERN.—John B. Welch, director of taxes, appointed assistant vice president, Department of Finance and Taxation, with headquarters remaining in Washington, D.C.

George E. Green, general agent, Rochester, N.Y.. appointed general eastern freight agent, New York, succeeding Chellen E. Coskie, who was named assistant freight traffic manager, Richmond, Va., last September.

Jomes C. Cook, industrial agent, Atlanta, Ga., appointed general industrial agent, Birmingham, Ala., succeeding J. L. Townshend, who was recently promoted to assistant vice president, Washington, D. C.

Haviland Hobbs, director of real estate and conveyancing, for the system, appointed assistant vice president, Department of Finance and Taxation, Washington.

R. W. Ellermon, assistant freight traffic manager, Atlanta, Ga., promoted to freight traffic manager—rates and divisions, Washington, D.C.

TEXAS & PACIFIC.—L. T. McIntyre, treasurer, retired. Effective Feb. 1, R. Shelton Goode, corporate secretary, elected secretary and treasurer.

Jock Edword Lorge, assistant western general sales manager, appointed western general sales manager. Los Angeles, effective Feb. 1, succeeding A. N. Overoll, retiring. Effective Feb. 1, George L. Brooks, district

manager-freight sales, El Paso, Tex., named regional manager-freight sales there, to replace A. C. Tanksley, retiring.

Effective Feb. 1, William T. Bruegmann appointed vice president and general manager of Merchants Cold Storage Co., T&P affiliate, succeeding Corl V. Dockins, retiring.

Kenneth D. Hestes, superintendent, Western division, Fort Worth, Tex., appointed general superintendent transportation. Dallas, to succeed Wilbur C. Foster, promoted (RA, Jan. 23, p. 33). Roymond H. Blossingome, assistant superintendent, Eastern division in charge of the Louisiana section, replaces Mr. Hestes.

Howard Crouse, purchasing agent, named manager, purchases and stores and his former position abolished. Manager of stores position abolished.

WESTERN MARYLAND.—W. Cecil Sinners, general freight agent, Baltimore, Md., appointed assistant freight traffic manager there, succeeding Albert F. Forster, who retired Dec. 31. Corl N. Collins named general freight agent, Kenneth E. Diehl, assistant general freight agent, and Phillip D. Boer, assistant to general freight agent.

John Krzneric, of the WM's Chicago staff,

John Krznoric, of the WM's Chicago staff, appointed assistant to foreign traffic manager, Baltimore.

Supply Trade

Missco Transportation, Inc. has announced acquisition of the railroad seating division, Dwight Austin Products Co., Kent, Ohio.

Donold Horne, railroad sales representative for Chipmon Chemical Co., has been appointed manager of a newly established sales district (Minnesotta, North and South Dakota and part of Wisconsin), with headquarters at 786 North St. Albans Street, St. Paul, Minn. Mr. Horne will be in charge of agricultural, industrial and railroad sales.

Vapor Heating Corp. has announced the following retirements: Gustav N. Rundquist, general superintendent: Raymond E. Mattern, general foreman, and Joseph F. Gobriel, sales and service representative of Vapor to the Electro-Motive Division of General Motors.

Wesley L. Kubik, vice president, manufacturing. Athey Products Corp., has retired. Mr. Kubik will be retained in an advisory capacity as a production consultant for a year. Keith V. Gilbert has been named assistant to the sales manager.

George W. Baughman, vice president, Union Switch & Signal Division of Westinghouse Air Brake Co., has been appointed to the president's staff at Pittsburgh, Pa.

Robert J. Moe and John W. Ropp have been appointed district managers, Tomper, Inc., with headquarters at Minneapolis and St. Louis, respectively, W. A. Blockford appointed district representative, San Francisco.

Gregory G. Gogorin has been appointed to the newly created position of assistant vice president—foreign operations, W. H. Miner, Inc., at Washington, D. C. Kenneth R. McCormoc has been appointed office and personnel manager.

Harold Harris, vice president of Enterprise Railway Equipment Co., Chicago, has been named executive vice president.

M. R. McQuaid, Jr., of Jacksonville, Fla., and Grid Sales, Inc. of Baltimore, Md., have

been appointed sales agents for railroad tooling by Vascoloy-Ramet Corp. of Waukegan, Ill.

A newly completed plant in Asheville, N. C., has been acquired under a long-term lease by SKF Industries, Inc. to aid increased production and sales of the 'Expediter' railroad' bearing and provide improved service to the railroads in the Southern states.

The Atlantic Trailer Corp., Berlin, Md., has appointed the Ralph W. Payne Co. of Washington, D. C., as its representative to the railroads of the southeastern region of the United States.

Ralph D. Brizzolara, vice president of American Steel Foundries, Chicago, retired Dec. 31.

Charles E. Wolfe, sales assistant in the Houston, Tex., district sales office of Inland Steel Co., has been transferred to Dallas, Tex. Stuart A. Pennels has been transferred from Chicago to replace Mr. Wolfe in Houston.

Luther Smythe has been appointed eastern division sales representative—containers for Fruehouf Trailer Co., at Kearny, N. J., where he formerly served as salesman.

Eugene F. Leherissey, owner of Gibhs-Leherissey, 332 South Michigan Avenue, Chicago, will handle railway sales in the Chicago area for C&D Botteries, Division of the Electric Autolite Co.

Donold S. Onnen, former director of research for the New Hoven at New Haven, Conn., has been appointed a member of the sales engineering division of the Cuno Engineering Corp., Meriden, Conn.

Headed by C. J. Moore, vice president—marketing, a new sales and service organization, the Exide Industrial Marketing Division, has been created by the Electric Storage Bottery Co. to serve as the marketing arm for its Exide Industrial Division and its new Nickel-Alkaline Division. It combines into one unit the nation-wide Exide industrial sales and service engineering facilities with those of the former Edison Storage Battery Division of Thomas A. Edison Industries, McGraw-Edison Co., now called the Nickel-Alkaline division.

t. E. Gunther has been appointed an eastern representative for M & J Diesel Filter Corp., Chicago, and Unity Roilway Supply Co., Chicago. Mr. Gunther will have headquarters in Richmond, Va.

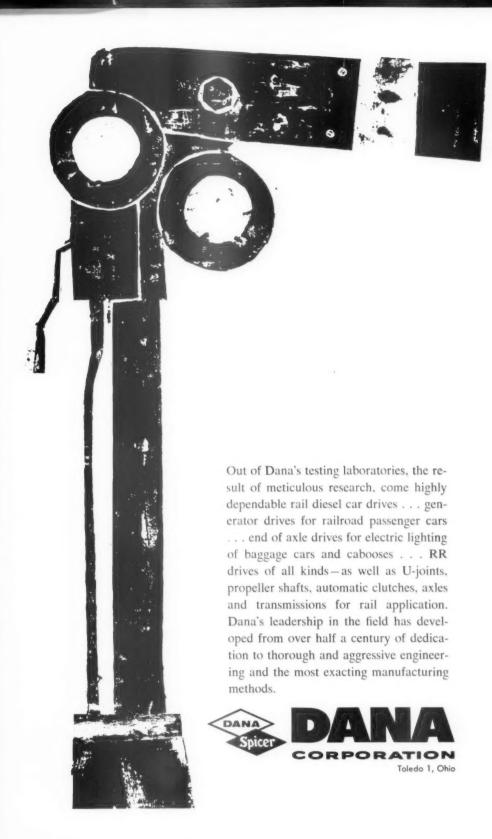
Mel H. Frank of the Mel H. Frank Co., Cleveland, has been named sales representative for Unity Roilway Supply Co., Chicago, with responsibility for sales throughout the Cleveland area.

R. R. Baker has been appointed director of the newly-organized international sales department of Pullman-Standard.

OBITUARY

Herbert Field McLaury, 70, who retired in Oct. 1958 as advertising manager, Association of American Roilroads, died Jan. 23 at Montgomery General Hospital, Olney, Md., after an extended illness.

William W. Finley, Jr., 72, who retired in 1956 as manager of freight traffic research, Pennsylvania, died Jan. 26 at his home in Bryn Mawr. Pa.



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Carloadings Drop 2.8% Below Previous Week's

Loadings of revenue freight in the week ended Jan. 28 totaled 476,403 cars, the Association of American Railroads anonunced on Feb. 2. This was a decrease of 13,646 cars, or 2.8%, compared with the previous week; a decrease of 128,643 cars, or 21.3%, compared with the corresponding week last year; and a decrease of 106,053 cars, or 18.2%, compared with the equivalent 1959 week.

Loadings of revenue freight for the week ended Jan. 21 totaled 490,049 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE	REIGHT C	ARLOADING	35
For the week	ended Sa	turday, Jan	. 21
District	1961	1960	1959
Eastern	68,101	94,161	83,576
Allegheny	72,895	112,466	96.499
Pocahontas	41,673	51.868	49,233
Southern	102,114	112,835	107,498
Northwestern	57,913	63,505	61,676
Central Western	102,906	105,076	109,994
Southwestern	44,447	47,496	47,274
Total Western			
Districts	205,266	216,077	218,944

lotal Western			
Districts	205,266	216,077	218,944
Total All Roads	490,049	587,407	555,750
Commodities: Grain and grain products Livestock Coal Coke Farest Products Ore Merchandise I.c.I. Miscellaneous	56,330 3,786 92,990 5,243 34,284 11,418 28,528 257,470	47,065 4,772 112,469 11,585 38,794 21,558 37,176 313,988	51,256 5,021 111,878 7,879 37,209 15,780 40,425 286,302
Jan. 21 Jan. 14 Jan. 7	490,049 516,210 439,193	587,407 605,793 589,801	555,750 586,342 550,666

Cumulative total, 3 weeks 1,445,452 1,783,001 1,692,758

PIGGYBACK CARLOADINGS.

-U. S. piggyback loadings for the week ended Jan. 21 totaled 9.363 cars. compared with 9,435 for the corresponding 1959 week. Loadings for 1960 up to Jan. 21 totaled 28,197 cars, compared with 28,026 for the corresponding period of 1959.

IN CANADA.—Carloadings for the seven-day period ended Jan. 14 totaled 61,559 cars, compared with 48,259 for the previous seven-day period, according to the Dominion Bureau of Statistics.

		Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada	2		
Jan. 14, 1961		61,559	24,734
Jan. 14, 1960		66,996	27,995
Cumulative Totals			
Jan. 14, 1961		109,818	45,265
Inn 14 1960		116 026	60.014

New Equipment

PIGGYBACK

► Trailer Train.—Ordered 600 85-ft, roller-bearing piggyback flat cars from ACF. Bethlehem Steel, General American and Pullman-Standard at an estimated total cost of \$8,100,000. Deliveries will be completed in March. The new cars, described as being "of several different but compatible designs," will increase Trailer Train's total fleet to 6,259 units.

New Facilities

- ► Bolivian Railways.—Will purchase new parts and materials valued at \$3,400,000 under a project to be financed through the Inter-American Development Bank. Details may be obtained from the bank's office, 801 19th St., N.W. Washington, D.C.
- ► Chicago & Eastern Illinois.—Ordered equipment from General Railway Signal Co. for installation of CTC between Danville and Watseka, Ill., 46 miles.
- ► Hedjaz Railway.—The Executive Committee for Recommissioning the Hedjaz Railway invites bids until April 3 for rehabilitating the line between Ma'an, Jordan, and Medina Al-Munawara, Saudi Arabia, 503 miles. Specifications and conditions, design report, profile of the project and other relevant documents are available from the committee. Box 134, Damascus, Syria, U.A.R.
- ► Iranian State Railways.—Will use part of a \$15,000,000 Export-Import Bank credit to purchase locomotives and rail cars in the U.S.
- ► Iraqi Republican Railways.—Invites bids for construction of bridges and culverts between Ghubaishiyah and Maqil, 37 miles, on the Baghdad-Maqil-Um Qasir standard gage line. Conditions and specifications are available from the Directorate General of Railways, Baghdad.
- ► New York City Transit Authority.—Placed an \$8-million order with Union Switch & Signal Division of WABCo. for automatic signaling and interlocking equipment to be installed on the Lexington Avenue Line of the IRT subway.

Maintenance Expenditures

▶ Down 3.7% in November.—Expenditures by Class I roads for maintenance of equipment, way and structures in November 1960 were down about \$8.8 million, compared to the corresponding month in 1959, according to report of AAR Bureau of Railway Economics summarized below:

	Nov. 1960	Nov. 1959	% Change
Maintenance of Way and Structures	\$ 92,574,487	\$ 94,677,068	-2.2
Maintenance of Equipment	138,025,148	144,698,048	-4.6
Totals	\$230,599,635	\$239,375,116	-3.7

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Missile Car Readied for Test

► The Story at a Glance: America's first missile-launcher railroad car arrived in Seattle, Wash., last Tuesday, ready for final outfitting and the test firing of a Minuteman missile later this vear.

Boeing Airplane Co., prime contractor for the Minuteman, will install launch gear in the car. Actual date for the test firing was not revealed, but it was learned that it will occur later this

vear at Cape Canaveral, Fla.

American Car & Foundry Division of ACF Industries built the missile car and will produce four more in the program. ACF and American Machine & Foundry Co. are sub-contractors in the missile car development. AMF is providing hydraulic equipment and controls

Armed missile trains, able to rove the U.S. rail network in unpredictable patterns, have moved a step closer to reali-

The first car for such service-and one from which a Minuteman ICBM will be test-fired later this year-is now ready for final outfitting at Boeing Airplane Co.'s plant in Seattle.

(In its first test-firing from a ground position, the Minutemen scored a 'spectacular success" last week.)

The car left ACF's Berwick, Pa., plant late Jan. 25. It was handled to Chicago in passenger-train service, and from Chicago to the coast in a hotshot Milwaukee Road freight train.

The missile car, painted Air Force blue and stencilled "101X," is 88 ft over couplers (79 ft 61/2 in. over end sills), 10 ft 2 in. wide, and 15 ft 34 in. high.

In appearance it is similar to a standard baggage car. The roof is rounded, and on the sides, extending almost from floor to roof line, is stencilled a 1776 "Minuteman." This first car has doors in the ends only, although later versions will have a personnel door in the side.

The concept of the car, with capacity to provide a cushioned ride for the 58ft Minuteman and serve also as a launching pad, imposed rigid design re-

quirements.

The need for shock-free riding quality was met by built-in "three-way" cushioning-coil springs and rubber air bags in parallel on the six-wheel trucks for vertical shock absorption and constant coupler height; a 15-in. travel sliding center sill for longitudinal cushioning, and swing hangers for transverse protection. The car is equipped also with rubber draft gear and passenger-car couplers.

Stiffness and strength requirements, which are most severe in the area near the center of the car where the ICBM will stand upright for launching, were met by the liberal use of LAHT steel. In fact, this alloy has been used throughout the car as an important weight saver. And weight was a problem; the solid-fuel Minuteman alone will weigh in excess of 30 tons.

To distribute this weight the car has an uncommonly large center sill. The fishbelly design drops low between the trucks and is in excess of 30 in. at its wider point. In addition, in the floor area where the missile will stand upright, the car is equipped with crossmembers which measure close to 36 in. in depth. Stiffness in the car's backbone

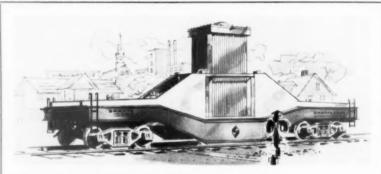
is vital at this point.

The six-wheel trucks are not radical, considering the car's uncommon assignment. Four-wheel versions have been used in passenger cars. Wheels are 33in. wrought steel. Roller bearings are utilized. Outside swing hangers and spring planks carry the bolster through the combination of helical coil and air springs. Pressure in the air springs is regulated to maintain the proper coupler

One unusual feature, however, is what ACF engineers call a "truck lock-This device will be used just prior to the firing of a missile. In effect, it locks the trucks to the car body. Then, special jack pads descend hydraulically to the face of the ties and lift the entire car clear of the rails. This is to provide a stable platform for the firing. Connected to those jacks nearest the launch pad is a 10-ft-square steel flame detector that lowers over the ties and rails to protect them from the back blast. Meanwhile, the trucks will provide needed ballast, which could be particularly important in high wind areas.

The arched roof of "101X" is in three sections. A 45-ft section above the body of the Minuteman is constructed as two halves which fold outward to give the missile room to rise into launching position. The second section, approximately 22 ft directly above the launching area, lifts upward and rolls back over the third section. The latter section is fixed and permanent; it covers the end of the car in which the control room is housed.

The contents of this room are the responsibility of AMF. Presumably, the controls here will not include the lastminute firing device since there will be no personnel on the car at the time of a "shoot." Such instruments as these will be housed in a separate Command car, the design of which is also being handled by the ACF-AMF team. In addition, ACF will design and build a special power car for missile-train use.



Stanray to Haul Spent Atom Fuel

A contract for transporting spent fuel from the N. S. Savannah world's first nuclear-powered merchant ship, has been awarded to Stanray Corp. by the U.S. Maritime Administration. It's the first contract award for transporting, with privately owned and operated equipment, large quantities of nuclear power reactor spent fuel elements. Stanray will design and construct the equipment and will be responsible for loading, shipping and un-loading the spent fuel elements. The shipping unit will be a stainles steel container mounted on a special flat car, as shown in the artist's conception above. The container itself, 11 ft high and 5 ft wide, will have 10-in, lead walls and will weigh 55 tons. The Savannah is scheduled for sea trials by early spring. Services to the ship by Stanray are expected to begin during 1962.

RRs Need Union Statesmanship

Mr. Hoffa of the Teamsters is taking aggressive action against the railroads because they are recapturing a small segment of traffic from the truckers. But while truckers, year after year, whittled away at railroad traffic, brotherhood leaders concentrated efforts on make-work to bolster sagging employment. They put the blame on railroad management. which was the easy out, but didn't help the employment situation. Now that the shoe is on the other foot in at least one area of the total traffic picture - management's aggressive and successful promotion of piggybacking-the Teamsters are going all-out to protect employment in their union. They are not blaming the truck operators: they are attempting to check their competition.

Railroad brotherhoods representing 750,000 employees today, as against 1,221,000 just ten short years ago, are still trying to hold membership by attacking legislation that permits railroads to discontinue trains no longer patronized by the

public; by attempts to preserve jobs that are invalidated by technology (e.g., firemen on diesels), and seeking legislation under the guise of safety requiring train-crew protection for track motor cars, burdensome air brake inspection rules, and so on.

If the Teamsters behaved like the railroad brotherhoods, they would not take steps to hamper growth of piggvback; rather, they would be plugging for two men in the cabs of automobile truckaway tractors. But Mr. Hoffa's union is much smarter. It recognizes that such demands on the truckers would make highway costs uncompetitive. After all, the sheer economic strength of the Teamsters could have forced 150-mile days for truck drivers long ago. Such a practice has never been pressed because the Teamsters recognize that any increase in employment thus secured would be rapidly wiped out by traffic losses resulting from increases in trucking costs and, hence, trucking rates.

Unemployed railroaders can point

a telling finger at union leaders, whose interest in the railroad industry has been limited to the share of dwindling gross they have been able to appropriate for their remaining, and senior, members.

At no time has the need for statesmanship by railway labor leaders been so great or crucial. It will not be achieved so long as competitive brotherhoods limit their activities to a scramble for their respective share of the dwindling spoils.

One exception to the negative approach, at the local level at least, is the growing program on the Reading, where local chairmen are tackling the problem of holding and expanding traffic. And at least one member of this group, we understand, is ready to go to bat for piggybacking in opposition to the union leaders for the truckers.

Robert & Louis

Diversification: Truckers' View

Motor carriers are sticking with their charge that "the main objective of rail entry [into the trucking field] is to checkmate the development of truck service in the hope of driving business back to the railroads."

Lee R. Sollenbarger, executive vice president of Transcon Lines, contends that the way to a stronger national transportation system lies not in rail diversification but rather in a "strong and conscientious program of rail-truck coordination." Among the areas where he thinks rails and trucks might get together:

- Joint rates and routes.
- Plan I piggyback.
- A joint effort to restrict or remove the exempt commodities clause from Part 2 of the Interstate Commerce Act.
- A strong curtailment, "if not elimination, of Section 22 rates, except during national emergencies."
- An amendment to the Act "to allow motor carriers, as well as other modes, the right of injunctive processes against those who are operating illegally in certain specified areas."

• The elimination of "many unnecessary restrictive state laws."

Mr. Sollenbarger presented his antidiversification, pro-coordination views at a meeting of the San Francisco Bay Area chapter of the ICC Practitioners Association. Earlier, the group had heard the railroad case from Clair M. Roddewig, president of the Association of Western Railways, who called diversification a "dynamic and positive step in the direction of strengthening the common carrier system" (RA. Dec. 5, 1960, p. 24).

Mr. Sollenbarger would have none of that. He charged that "if history repeats itself, and present hostile attitudes persist, the real interest of at least some railroads in engaging in other forms of transportation may well be to burrow from within and undermine what are now independent branches of transportation. The unhappy result would be the ultimate restoration of railroad monopoly of overland transportation."

Transcon's executive vice president also contended that "we find a complete failure of railroads to specify their intentions, factually, in connection with motor carrier operations, if permitted. This lapse is not one to be regarded lightly. They have asked us to give them a blank check without first having established their credit."

Arguments that existing motor carriers would be protected under certification restrictions and that the threat of private carriage would be a restraint against monopoly haven't convinced the truckers. Mr. Sollenbarger added.

He questioned whether railroads would use their motor carrier certificates to create more than mere feeder lines to rail routes. And he challenged the private carriage theory by citing Transcon's experience last year: TC, he said, handled about 860 million pounds of freight in 1,100,000 shipments, an average of about 800 pounds per shipment-"fairly representative of the average motor carrier. Certainly, there were a few shippers who, if necessary, could get by with some kind of private carriage. . . . But what about all those small shippers who must find a way to compete with the larger shipper, but are not large enough to provide their own service?"

Port Agency Bids \$20.5 Million

▶ The Story at a Glance: The Port of New York Authority has offered to pay \$20.5 million for the properties of the bankrupt Hudson & Manhattan, then pour \$63 million into a rehabilitation program (including 237 new cars) and operate the rail rapid transit system at an estimated annual loss of \$5,000,000. H&M Trustee H. T. Stichman hailed the Port Authority's willingness to help resolve New York's commuter crisis, but said a fairer price for the H&M would be \$50 million.

"Both rail and highway transportation are essential to the economic welfare of the people of the New York-New Jersey metropolitan region," Vice Chairman James C. Kellogg, III of the Port of New York Authority told a New Jersey Senate Commission. For this reason, the Port Authority is ready to acquire, finance, improve and operate the railroad, terminal and real estate properties of the bankrupt Hudson & Manhattan Railroad, Mr. Kellogg said.

Port Authority terms, as Mr. Kellogg outlined them, are:

· Action by the legislatures of New

Jersey and New York to make it possible for the Port Authority to finance such a project. Specifically, this would require legislation permitting use of Port Authority revenues through a general reserve fund to meet the estimated annual H&M deficit to the Authority of \$5 million plus "statutory assurances that this proposal will not involve the Authority's General Reserve Fund in any other or further commuter deficit operations."

• Acquisition by the Port Authority at a fair and realistic value of what the Authority called "the dilapidated properties of the H&M." This, Mr. Kellogg made clear, would not be higher than a \$20.5 million value placed on the properties last year by the Securities & Exchange Commission.

• An agreement with the Pennsylvania Railroad to make it possible for the Port Authority, as a public agency, to continue to use PRR tracks under the terms of the present agreement for the joint operations of the two railroads between Jersey City and Newark.

Port Authority studies show, Mr. Kellogg said, that about \$63 million

beyond the purchase price would be required to make a modern transit operation out of the Hudson & Manhattan.

Thus, the total capital outlay by the Port Authority would be nearly \$85 million, Mr. Kellogg said. Of this, improvements to the physical plant, including "the immediate and necessary replacement of the railroad's obsolete signal system with a modern installation that would permit not only a greater number of trains, but safer and more reliable operation, . . . an entirely new, modern power distribution system, . . . major rehabilitation and refurbishing of the H&M passenger stations, . . . and extensive track maintenance work" would require expenditures of \$30 million.

A total of 237 new, air-conditioned modern cars to replace the old cars would cost another \$24 million, Mr. Kellogg said, noting that 288 new cars would be needed in all, but under existing operating agreements with the H&M, 51 of these would be provided by the Pennsylvania Railroad.

Rehabilitation of Hudson Terminal office buildings in downtown Manhattan would add \$9 million more to the total cost, Mr. Kellogg said.

A rehabilitated H&M would handle greatly increased traffic, Mr. Kellogg said, noting that New Jersey's Division of Railroad Transportation anticipated ending Hudson River ferry service by bringing Jersey Central passengers into Pennsylvania Station, Newark, where they could transfer directly to the Hudson & Manhattan. Erie-Lackawanna passengers already have access to an H&M station at Hoboken.

"If the legislatures make it possible for us to finance this H&M project," Mr. Kellogg said, "all of these 288 modern transit cars, with the cooperation of the Pennsylvania Railroad, could be rolling within a three-year period."

"Acquisition, rehabilitation and operation of the H&M will involve an annual deficit to the Authority of about \$5 million," Mr. Kellogg said, adding that he and other PA commissioners were "of the opinion that an annual deficit of this magnitude can be carried by our other facilities."

"In the normal course of events," he concluded, "we would hope that the Port Authority might be able to acquire and commence the operation and rehabilitation program of the H&M before the end of 1961."

Herman Stichman, trustee of the

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for H&M

bankrupt H&M, took issue with some of the Port Authority figures.

"It is good to learn," Mr. Stichman said, "that the Port of New York Authority, after delaying for 40 years any start in aiding rail commuter transportation, one of the tasks for which it was created in 1921, is at long last ready to do so."

Mr. Stichman praised the idea of using the Hudson Tubes to link New York's transit system with New Jersey commuter railroads and suggested that eventually a transit loop with through operation between Jersey points and the New York subways and operating over the subways would be needed.

As to the value of H&M properties, both railroad and office buildings, Mr. Stichman strongly disagreed with Mr. Kellogg. The SEC figure of \$20.5 million was not a "valuation," but an "estimated liquidation value of the railroad" based on scrapping the railroad, Mr. Stichman said.

Mr. Stichman suggested that a "fair purchase price" for the H&M properties would be \$50 million. He cited a 1960 report by outside engineers that said the Tubes should bring between \$25 million and \$35 million if sold to a public body; to this he added a 1957 appraisal of the office buildings at \$17 million, plus \$4 million committed subsequently for modernization.

Split Traffic Economically, For-Hire Carriers Advised

Profitable railroad performance "requires the railroads to make attractive rates where they have an economic advantage, and to relinquish traffic which is not compensatory," the New Jersey Industrial Traffic League was told by James G. Lyne, editor of Railway Age.

Mr. Lyne, who is also director of commercial research for the Traffic Executive Association — Eastern Railroads, suggested that "it would be to the advantage of all for-hire carriers to approach the problem of competitive rate-making on the basis of letting the 'other fellow' take the traffic he can handle with greater economy—thereby reducing the average costs and rates of all for-hire carriers."

He added: "Such an approach to rate-making would increase the overall demand for transportation, by minimizing the incentives producers now have to seek substitutes for transportation—such, for instance, as decentralization of production."

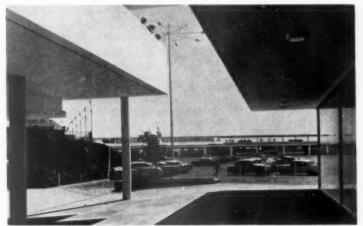
Bay Area Transit

The future of rapid transit-if present plans are carried out-in San Francisco's five-county Bay Area Rapid Transit District has been visualized for area residents in a series of detailed photo renderings by artist John Gould. Mr. Gould's renderings, prepared from photographs of the area modified in accordance with engineering plans of the rapid transit district, show the three kinds of facilities planned, as they will appear: subways, like the proposed bi-level Market Street subway at right, in the congested downtown areas; socalled "aerial transit" facilities in intermediate sections and terminals at shopping centers. The 100 miles of high-speed rail transit would operate at speeds up to 85 mph.





LANDSCAPED aerial structures in the intermediate sections would run in the centerlines of widened avenues, like Hearst Ave., Berkeley, shown here.



SHOPPING CENTER TERMINALS, like Bay Fair, San Leandro, would serve regional commuters, provide downtown trans-bay service in 22 min.

You Ought To Know...

- ICC has "under active study" the operating brotherhoods' plea for a general investigation of tank trucktrain grade crossing accidents, ICC Chairman Hutchinson told chiefs of the organizations last week. The request was rejected once, but the unions then filed a petition for reconsideration, which is now before the Commission.
- A 430-acre tract for industrial development has been purchased by the Union Pacific in northeast Denver, near its established 120-acre East Denver Industrial District, to "keep pace with the rapid industrial expansion" in the area.
- Continuing growth of the West and Southwest was reflected clearly last year in the results of Southern Pacific's industrial development program. SP's report for 1960 showed an average net gain of one new industry per day.
- Interstate train-off provisions of the 1958 Transportation Act do not apply to rail-bus service of which the rail segment is intrastate. The ICC so ruled in dismissing, for lack of jurisdiction, a train-off notice whereby the New York, Susquehanna & Western undertook to discontinue New York City commutation services which involve rail operations between Butler. N. J. and Susquehanna Transfer, and bus service between the latter point and New York. Susquehanna contended that the coordinated operation amounted to an interstate "train" service. This position was challenged by New Jersey and by the Susquehanna Transit Commuters Association. The ICC's dismissal order upholds the challengers. Susquehanna is thus left with recourse to the ICC only under the 1958 act's intrastate provisions. These permit appeal to the Commission only after state authorities have had 120 days to deal with the matter.

- Stockholder meetings will be held in April and May—Northern Pacific on April 27, Burlington on May 3 and Great Northern on May 11—for voting on the three-road unification proposal. Spokane, Portland & Seattle, owned jointly by GN and NP, would be leased by the merged company for 10 years. Pacific Coast Railroad Company, a small, wholly-owned GN subsidiary, would be included in the unified Great Northern Pacific & Burlington Lines.
- A full-time press and public information office will be maintained in Washington, D.C., by the five operating brotherhoods during the time the Presidential work rules commission is in session. The office, to be set up at the Dodge Hotel, will be manned by union PR officers and will make available texts and summaries of union presentations to the commission.
- AAR has elected two new directors
 —Erie-Lackawanna President M.
 G. McInnes and Milwaukee President W. J. Quinn. They succeed, respectively, former Erie-Lackawanna President H. W. Von Willer (now chairman of the board), and Downing B. Jenks, who resigned as president of the Rock Island to become president of Missouri Pacific.
- H. E. Gilbert, president of the BLF&E, is confident that the work rules study will "reaffirm public understanding and acceptance" of locomotive firemen. He told union officers from five midwestern roads that the commission has the opportunity to become a forum "where facts and figures will rank above slurs and slogans."
- threatened strike against New York Central by ORC&B (over the number of conductors assigned to sleepers) was averted last week by a settlement that calls for maintaining the status quo until April 1, when timetables are changed. At that time the parties will negotiate on any questions of reducing or adding to conductor assignments, with the dispute going to arbitration in event of disagreement. The dispute between the railroad and the union dates back to 1958, when NYC released 95 Pullman conductors.

- Optimism (of the cautious variety) keynotes the Milwaukee Road's outlook for 1961. Two factors—forecasts of an increase in industrial output and construction later this year and indications that '61 will be a good year for crop production—are the bases on which Chairman Leo T. Crowley and President William J. Quinn are building their expectations for increases in revenues and earnings.
- More liberal credit arrangements will be offered carload shippers next month. The ICC has affirmed its prior finding to the effect that its credit regulations should be modified to permit railroads generally to allow a maximum of 120 hours, instead of the present 96-hour allowance, for payment of charges. The 120-hour plan already applies to LCL charges. The liberalization, effective March 10, comes in response to a petition filed by Southern-Territory railroads which sought to do something to meet the competition of still-moreliberal credit arrangements offered by truckers. Official - Territory roads, other than C&O, opposed the liberalization.



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A \$150 million development, centered around a high-rise office building-hotel complex is the look of the future for a six-block area on Chicago's lake front. The development, to be known as Illinois Center, is to be constructed on air rights acquired from the Illinois Central. An option-purchase agreement was recently worked out between IC and the Illinois Center Corporation of Texas.

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EMPLOYMENT OPPORTUNITIES SECTION

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ICC Ups the Umbrella

In its decision in the so-called Pan-Atlantic case (I. & S. M-10415), a majority of the Interstate Commerce Commission has virtually repealed the new rate-making clause of the Transportation Act of 1958. That is, the Commission's majority requires (RA, Jan. 16, p. 9) the establishment of railroad piggyback rates between the East Coast and Texas at an arbitrary 6% higher than rates for similar service by a "fishyback" coastwise water carrier (with highway connections at both port terminals).

The 1958 rule of rate-making prohibits the ICC from holding the rates of a carrier at a particular level—solely for the purpose of protecting the traffic of another mode of transportation. The Commission's majority has ridden rough-shod over this prohibition, doing so under the qualifying phrase in the law that it must exercise its powers with due regard to "the objectives of the national transportation policy."

The Commission's majority has construed that phrase to mean that the national transportation policy requires it to keep the fishyback operator in business and that, unless railroads are forbidden to make effectively competitive rates, the fishyback carrier might fold up.

The ICC majority makes much of the advantage to the nation's defense of having a fleet of coast-wise vessels in peace-time service—ready to be transferred to overseas service in the event of military need. Excluded from the thinking of the Commission's majority is recognition of the necessity of keeping the railroads in effective operation in peace-time, if they are to be on hand to take over the domestic traffic which the coast-wise carriers will abandon when the first shot is fired.

Railroads as a whole earned a little more than 2% on their investment in 1960—and the Eastern roads (heavily involved in this competition from fishyback operators) earned much less than that.

The Commission's majority cited a lot of comparative cost figures—but the essential fact about all the cost talk is that anything the railroads could earn over and above "bare bones" costs on the tonnage the ICC has now forbidden them to go out after, would add just that much to net railway operating income. The Commission's majority has said, in effect, that 2% on investment is plenty for railroads to make—and that,

with them earning as little as that, the Commission is going right ahead and whittle that 2% down (perhaps to zero or less) whenever any competing form of transportation comes along and asks ICC intervention to keep it in business.

The Commission's majority does not seem to appreciate the fact that, actually, water and highway transportation are not destroyed when a particular highway or waterway operation is discontinued. The vehicles and vessels are simply transferred to other locations. If economic conditions change (e.g., if railroad rates are forced upward too high), these vehicles and vessels can be back in competition almost overnight.

When a railroad is forced out of business, it's entirely different. When tracks are torn up, they stay torn up. The fact that the learned regulators should be so concerned to keep fishybacks profitable—at the expense of the railroads, which once abandoned are a permanent loss to the nation—is just one of those quirks of the regulatory mind that are hard for the simple layman to follow.

A Commission majority recently handed down a decision in a private motor carrier case (MC-117568), in which the carrier was permitted to become a contract carrier, while remaining in substantially the same ownership as before—just another instance of regulatory concern for the prosperity of non-rail transportation, with no parallel concern for the health of the railroads.

It is, perhaps, a compliment to the reputation the railroads have acquired of their ability to "take it," that the regulators keep putting them to the test like this. However, the case of the farmer who fed his mule sawdust should be borne in mind. When the ratio was 25%, the mule kept working; at 50% he slowed down; at 75% he slowed down still more; at 100% he died.

To the credit of several members of the Interstate Commerce Commission, be it said that they are not misled by the myopia of the majority.

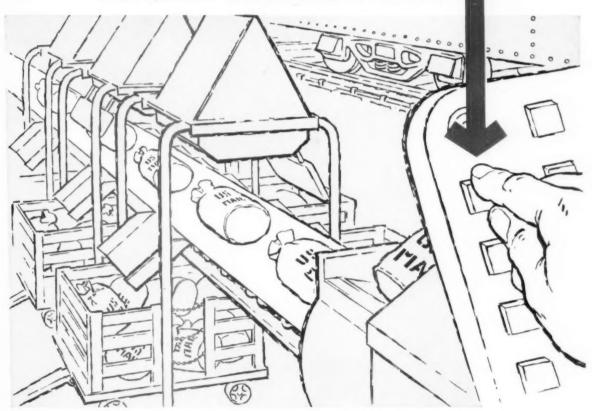
It is our belief that decisions such as the foregoing are so manifestly unjust and irrational—
and lethal—that the railroads ought to publicize
them far more widely than they have done. We
do not for a moment believe the American public
wants fishyback and other specialized transportation at a few seaports and other favored locations
—at the expense of undermining the health of the
nation's railroads.

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